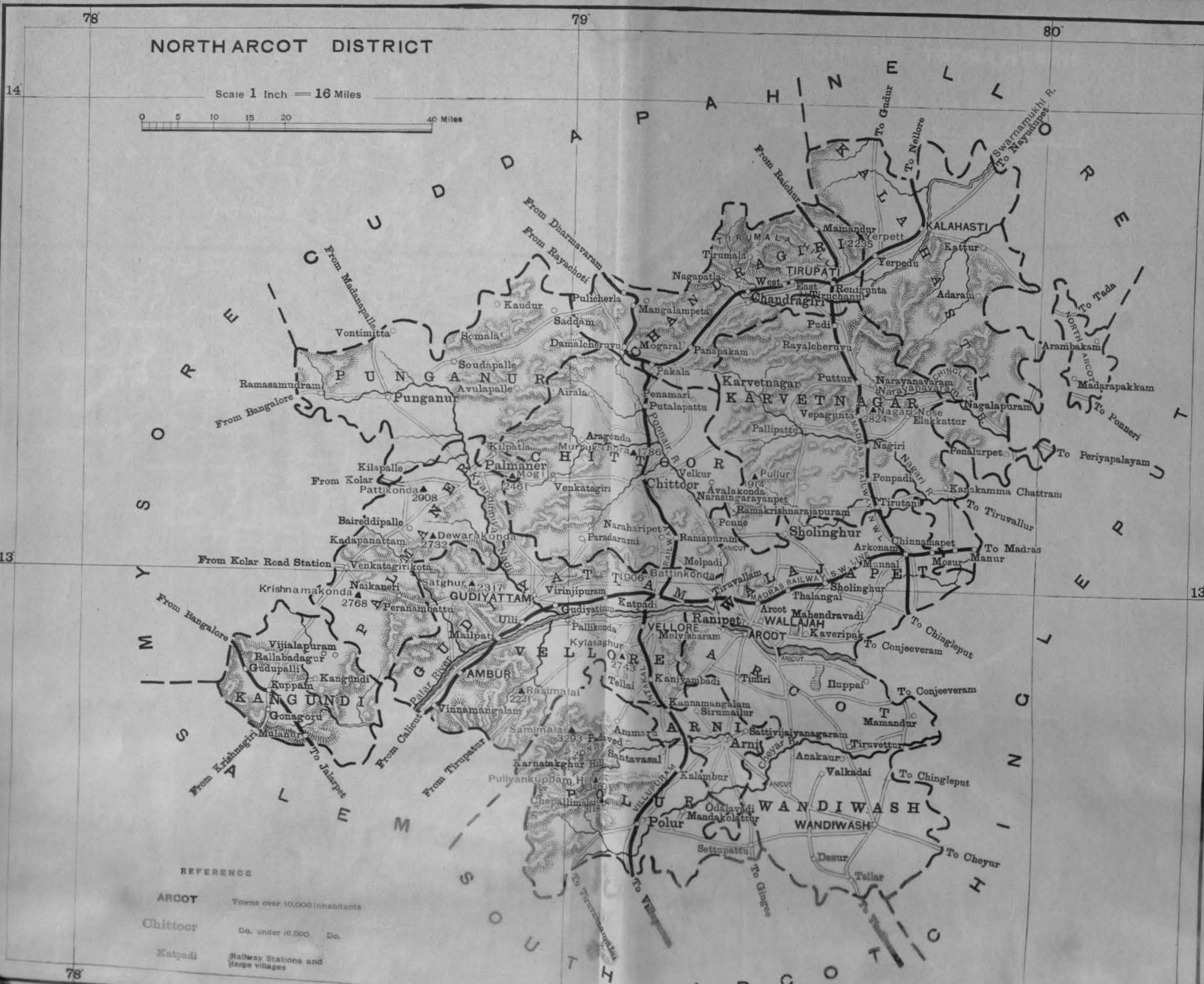
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MADRAS DISTRICT MANUALS.

NORTH ARCOT.

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MADRAS DISTRICT MANUALS.

NORTH ARCOT.

COMPILED BY

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ASSISTANT COLLECTOR AND MAGISTRATE, NORTH ARCOT DISTRICT.

NEW EDITION REVISED BY

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VOLUME I.

MADRAS:

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS.

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PREFACE TO THE NEW EDITION.

THE present edition of this manual has been undertaken in connection with the general revision of all the manuals of the Presidency. Under that scheme each manual is divided into two volumes, the first containing matter of a more or less permanent character, while the second gives statistical information which, of course, requires periodical revision.

Of the first volume of this manual, chapters II and V are practically reprints, with a very few alterations, of the corresponding chapters of the first edition. In chapter I the description of the geology of the district, taken from an article by Mr. Bruce Foote, is new, and there has been some re-arrangement of other matter. The third chapter has been brought up to date by the addition of an account of the new settlement. Considerable additions have also been made to Mr. Cox's account of the religion and castes of the people (chapter IV), and I have to thank many officers of both the Revenue and Registration Departments for furnishing me with information on these topics. The Glossary of Revenue terms is new. I have not thought it necessary to distinguish the original from the new matter in the text itself, but where I have differed from Mr. Cox in matters of opinion I have usually expressed my own views in a footnote or an appendix. A separate preface, dealing with the statistical information, will be found in the second volume.

H. A. STUART.

PREFACE TO THE FIRST EDITION.

THE compilation of this Manual was first undertaken in 1876, but when, at the close of that year, famine visited the district, little progress had been made, and for two years the work remained in abeyance, only being resumed at the close of 1878.

The statistics have mostly been brought up to the close of 1879, but in some cases I have thought it better to omit figures relating to years subsequent to 1876, as these have been wholly abnormal.

I have to acknowledge the ready assistance of most of the Native officials of the district, to whom I have had to apply for information of various kinds regarding their taluks or divisions. I would particularly express my obligations to V. Srínivásáchári, Tahsildar of Wálájá; N. Chakravarti Nainár, the late Tahsildar of Chittoor; K. Prakásam Naidu, Tahsildar of Vellore; and Nammia Chetti, Tahsildar of Gudiyáttam, all of whom have taken much interest in the work and rendered me very welcome and valuable aid.

The contributions of European officers are acknowledged where they are quoted. Mr. Bruce Foote, of the Geological Survey, as long ago as 1876, kindly promised an article upon the geology of North Arcot, but ill-health has unfortunately prevented his fulfilling the promise, and information upon this subject will be found to be meagre.

Every effort has been taken to secure accuracy in the compilation. My residence in the district has extended over more than six years, during which period I have had charge at different times of the Assistant's, Head Assistant's, and

Sub-Collector's divisions, and have visited those of the Collector and Deputy Collector, so that most of the descriptive notices of taluks and towns are the result of personal observation and inquiry.

ARTHUR F. COX.

HAMPSTEAD,
June 3rd, 1880.

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MANUAL

OF THE

NORTH ARCOT DISTRICT.

CHAPTER I.

PHYSICAL DESCRIPTION OF THE DISTRICT.

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CHAP. I. GENERAL DESCRIPTION.

Boundaries.

THE district of North Arcot lies between North Latitude 12° 21′—13° 56′ and East Longitude 78° 17′—80° 10′, and contains an area of 7,616 square miles. It is bounded on the north by Cuddapah and Nellore, on the east by Chingleput, on the south by South Arcot and part of Salem, and on the west by Salem and the province of Mysore.

The outline of the district is irregular and can hardly be described. It just touches the Pulicat lake at one point on the east, and includes a portion of the Mysore plateau on the west. For the most part it is a hilly and mountainous country, with a pleasing diversity of scenery. The western and northern portions are hilly and picturesque, while the eastern and southern are, as a rule, flat and uninteresting. The soil is fertile and well cultivated. Though a very large portion of its surface is covered with bare rocky hills, this characteristic affords opportunities for constructing numerous tanks, or reservoirs of water, by raising dams across the valleys. The rounded rock masses of the hills throw off the rainfall without absorbing it, and the frequent hill streams, thus fed, flow into the tanks, and filling them one after another cover the plain country with numerous sheets of water. North Arcot

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is one of the great tank districts of the presidency. Many of its reservoirs might almost be styled lakes, the waterspread of the Kávéripák and Mámandúr tanks, which are hardly ever dry, being some seven or eight square miles.

Etymology of name.

The name Arcot, now applied to the town in which the Nabobs of the Carnatic held their court, seems originally to have referred to a large tract of country lying on either side of the Pálár river. Here six rishis, or religious ascetics, are fabled to have lived a life of penance in as many jungle tracts or wildernesses, called in Sanskrit the Shadáranya, or six forests. The Tamil equivalent was áru-kádu, whence came the name Arcot. There is hardly a considerable stream or village without its legend of the doings of some holy rishi in its neighbourhood, of the wanderings of the five Pándavas, and less commonly of Ráma and Lakshman in search of the captive Síta; but the same stories are told with variations in places widely distant from one another, and it is evident that the legends have by pious frauds been adopted from elsewhere and incorporated in the local histories to add romance and importance to the vicinity. Early legend recognises the fact that the whole of the country now comprising the district was a wild impenetrable jungle, inhabited by demons and rákshasas, whom the gods expelled. Ádondai, after conquering the Kurumbas, perceiving that the forests had been the residence of holy men, is said to have built many temples at Conjeeveram and elsewhere. Gradually much of the jungle was cleared, and the soil brought under cultivation. Ptolemy writes of the ἀρκατοῦ βασιλειον σῶρα, which probably referred to this neighbourhood, and from this we may infer that it was of importance in his day. Eventually the name appears to have been transferred from the tract to the town, which became the capital of the Carnatic Subah.

Original constitution of district.

The northern division of Arcot was so called in consequence of its originally comprising only that portion of the Subah of Arcot lying north of the Pálár river, which was, in 1801, ceded to the Company with the rest of the Carnatic. The portion of the Subah south of the Pálár formed at first the southern division of Arcot. There have been repeated alterations in the composition of the district. After the cession there were added to the northern division the zemindáris of Kálahasti, Kárvetnagar, Venkatagiri, Saidápúr, and Kangundi, with the Krishnagiri division of the Báramahál, and the district of Hosúr above the gháts. In 1808, Venkatagiri, Saidápúr and part of Kálahasti were transferred to Nellore, and the Hosúr and Krishnagiri divisions, except the Kangundi zemindári and the present Palmanér taluk, were incorporated with Salem; while at the same time the five taluks

CHAP. I. GENERAL DESCRIPTION.

Original constitution of district.

immediately south of the Pálár were, with the Arni jágír, separated from the southern and added to the northern division of Arcot. The taluk of Satyavéd and the Pulicat division were also received from Chingleput. The district was then divided into the taluks of Chittoor, Tirupati, Cuddapanattam, Sátghur, Tiruvalam, Kávéripák, Sholinghur, Arcot, Vellore, Tiruvattúr, Pólúr, Wandiwash and Satyavéd, the Chittoor pálaiyams, with those of Mámandúr, Krishnápuram and Karakambádi, the jágírs of Arni, Ávalkonda and Désúr, and the zemindáris of Kálahasti, Kárvetnagar and Kangundi.

Pulicat was, in 1818, restored by the Company to the Dutch, but was given back shortly afterwards and added to Chingleput. It was restored to North Arcot in 1824, and in 1850 was, with part of the taluk of Satyavéd, given over to Chingleput. The rest of Satyavéd was added to the same district in 1860, when a reorganization of the taluks was effected. Previous to this the zemindári of Punganúr had, in 1856, been transferred from Cuddapah to North Arcot. The jágírs of Ávalkonda and Désúr were resumed in 1848 and 1826 respectively, and the pálaiyams of Mámandúr and Krishnápuram about 1848.

In 1860 Mr. Pelly, a member of the Revenue Board, was deputed to rearrange the divisions of the district. After some discussion the number of the taluks was reduced to nine in the following manner:—

The Chendragiri	taluk	was formed of the	Chendragiri and Tirupati taluks.
The Chittoor	do.	do.	former taluk modified.
The Palmanér	do.	do.	Cuddapanattam (Kadapanattam) taluk.
The Wálájá	do.	do.	Kávéripák, Sholinghur and that part of Tiruvalam east of the Ponné.
The Gudiyáttam	do.	do.	Satghur and the rest of Tiruvalam.
The Vellore	do.	do.	old taluk of that name.
The Pólúr	do.	do.	Pólúr, with part of the Chetpat taluk of South Arcot.
The Wandiwash	do.	do.	southern part of Tiruvattúr and Chetpat.
The Arcot	do.	do.	northern part of Tiruvattúr and old Arcot taluk.

Since 1860 no material alterations have been made, but the Kac'chinâd taluk of the Kálahasti zemindári, which forms the

CHAP. I. MOUNTAINS.

greater part of the Mádarpák division, was transferred to Chingleput on the 1st April 1894.

The Eastern Ghauts.

The most extensive range of hills is that of the Eastern Ghauts. These enter the Kangundi zemindári in the south-west of the district, and, passing northwards, gradually bend towards the east as far as the hills of Tirupati. Here the range is broken by a long valley which passes northwards into the Cuddapah district by the villages of Karakambádi and Mámandúr. Advantage has been taken of this interruption of the gháts to carry the north-west line of the Madras Railway into the Cuddapah district, and so on its course to Bombay. East of the Mámandúr valley the ghâts once more rise, and follow a north-easterly course until they enter Nellore from the Kálahasti zemindári. This range separates what used to be called the two Carnatics, viz., the Bálá Ghát or Mysore plateau, and the Payen Ghát or plain country. The hills rise rather abruptly and support, like a terrace, the plateau, which is generally of an undulating surface, broken here and there by barren and lofty peaks. The general elevation of this part of the district is about 2,500 feet above the sea, an altitude which renders the temperature some 8° or 10° cooler than that of the lowlands. The plateau is however feverish and unpopular with the natives, and though the soil is generally fertile, it is the most sparsely populated part of the district. From the main line of the hills run numerous spurs for long distances towards the south and east, gradually diminishing in size and importance, until the appearance of the country becomes that of an almost undiversified plain.

Numerous passes lead from the lowland taluks to those above the ghâts, but only three of these admit of wheeled traffic, viz., the Kallúr, Mogili and Sainagunta passes. The Kallúr pass, in the Chendragiri taluk, runs along the Dámalcheruvu valley and through the Kallúr pálaiyam to the Pílér taluk of Cuddapah. Along it passes the trunk road from Madras to Cuddapah, which is kept in excellent repair. The traffic is considerable, though less than it was before the construction of the railway afforded facilities for the transit of goods into the neighbouring district. The Mogili pass, in the Chittoor taluk, commences at a point almost directly west of, and at a distance of some twenty miles from, Chittoor, the head-quarters of the district. Through it runs the main road from Palmanér to Bangalore, and also to the subdivision of Cuddapah. The rise of the ghát is gradual, and the road is maintained in good order. The Sainagunta pass leads from the taluk of Gudiyáttam to Palmanér, where it unites with the road from Mogili. The ascent is steep, but the scenery very

CHAP. I. MOUNTAINS. The Eastern Ghauts.

picturesque. The principal ascent from the plains to the plateau used formerly to be by way of the Náyakkanéri pass, on the western borders of Gudiyáttam, and not far from Sátghur. Through this ascended the great trunk road to Bangalore, but the gradient was in parts so steep, and the roadway so constantly damaged by rains, that the route was for many years abandoned. It has now, however, been restored and is regularly maintained. Besides the above, many other passes without regularly made roads lead to the plateau. They are little more than mountain pathways, along which laden cattle are driven with some difficulty.

The Javádis.

Though the Eastern Ghauts form the most extensive range in North Arcot, the Javádi hills are the most lofty, some of the peaks attaining an elevation of 3,000 feet. These hills are situated in the south-west of the district, and are separated from the Eastern Ghauts by the broad valley of Vániyambádi. This valley narrows in the neighbourhood of Ambúr, where the Javádis and the gháts almost unite, and then widens again as it leaves the district and passes into Salem. A portion of the Javádi range which formerly belonged to Salem was transferred to North Arcot in 1885. The climate of the hills is most unhealthy, and the inhabitants somewhat rude in their manners. The range extends in a north-easterly direction as far as the town of Vellore, gradually declining as it approaches the Pálár or stretches to the east. One high and partially detached peak, Kailása-drúg, 2,743 feet in height, is six miles distant from Vellore, and, having a small bungalow upon its summit, forms a pleasant retreat during the extreme heats of summer. The Javádis used to be covered with fine forests, but these were almost entirely destroyed when the construction of the south-west line of railway was in progress, enormous quantities of timber being at that time felled for sleepers. Careful conservation is now doing much to remedy the recklessness of past years.

The Nagari Hills.

The level character of the south-eastern taluks is continued for a short distance to the north of the Pálár. The spurs of the Eastern Ghauts run through the Chittoor taluk into the north of Wálájá and the west of the Kárvetnagar zemindári. Through the latter estate runs a broad and fertile valley, which the north-west line of the railway traverses towards the Mámandúr gap already referred to. The valley is on the eastern side shut in by a range known as the Nagari Hills, which extends some forty miles northwards into the Kálahasti zemindári. The hills, which present an appearance of having been suddenly upheaved by volcanic action, overlook the valley with high precipitous cliffs, to the bases of which green slopes covered with bamboo and scrub jungle rise. This range is perhaps the most picturesque in the

CHAP. I. MOUNTAINS.

district. It is rich in forest, which, being under the control of the zemindars, is being much denuded in order to supply the railway with fuel.

RIVERS.

The direction of the watershed of North Arcot is, owing to its hilly character, irregular. The northern part, being a basin shut in on the west and north by the Eastern Ghauts, and blocked on the east by the Kárvetnagar hills, mostly discharges its drainage to the south, where it falls into the Pálár river. The western plateau also discharges to the south. The southern taluks slope gradually to the sea, in which direction their watershed runs. The rivers of Kárvetnagar also flow to the east, but the eastern portion of Chendragiri and most of Kálahasti are drained by the Swarnamukhi, which, at first flowing eastward, finally pursues a north-easterly course.

The Pálár.

The Pálár is the most important river in the district, and divides it into two almost equal halves. It rises near Nandidrúg in Mysore, not far from the origin of the Pennér. Fifty miles from its source the river enters North Arcot in the Kangundi zemindári, and thirty miles further on falls through the gorges of the Eastern Ghauts into the Vániyambádi valley. Here the Javádis throw it back slightly to the north, but it gradually assumes an easterly course, until it enters the Chingleput district. Above the gháts its bed is narrow and rocky, but on the plains it gradually widens, having at Arcot a bed upwards of half a mile in breadth, filled with sand to a great depth.

The Cheyár.

The next most important river is the Cheyár, which rises in the Javádi hills, and at first flows southwards into South Arcot. After leaving the highlands it bends to the east, with a slight tendency to the north, and, passing through the southern taluks of this district, unites with the Pálár near Walajabad in Chingleput.

The Ponné.

Another considerable tributary of the Pálár is the Ponné, rising among the rocky hills in the west of Chendragiri. Its course is almost due south, and after receiving the waters of numerous smaller streams flowing from the Eastern Ghauts, it joins the Pálár not far from Arcot.

Minor tributaries.

Smaller affluents of the Pálár are the Goddár and Koundinianadi, which have a direction similar to that of the Ponné, and unite with the main river near the towns of Ambúr and Gudiyáttam respectively. Substantial anicuts or dams have been constructed across the Pálár, Cheyár and Ponné, which feed large numbers of tanks. Smaller works of the same nature, but of ancient date, occur upon the lesser streams.

The Korttalaiyár.

The eastern centre of the district is drained by the Náráyanavanam and Korttalaiyár rivers. The former rises in the alluvial

valley west of the Nagari hills, and, passing through a gap in the chain, flows eastwards past the ancient town of Náráyanavanam. The Korttalaiyár rises close to the Pálár river some six miles east of Arcot, commencing its course at the surplus weir of the Kávéripák tank, which is itself fed by the Pálár. Flowing to the north-west it receives the waters of the Tiruttani and Nagari rivers, and discharges near Ennore.

The Korttalaiyár.

The Swarnamukhi rises just beyond the south-east border of the Chendragiri taluk, near Pákála. Passing along the broad valley in which the towns of Chendragiri and Tirupati are situated, it reaches the town of Kálahasti, and passes thence in a north-easterly direction into Nellore, disemboguing a little north of the Pulicat lake.

The Swarnamukhi.

Some strange alterations in the courses of these rivers are observable. There are evident signs of the Pálár, or a large branch of it, having formerly passed down the valley of the Korttalaiyár, and a stream bearing the Sanskrit name Vriddakshíranadi, or old milk river (*pál*, milk ; *ár*, river), still exists, uniting the beds of the two streams. The Nagari river, in the same way, formerly united with that of Náráyanavanam near Nágalápuram, but was diverted from its ancient course by an evidently artificial cutting, half a mile in length, which is still observable. This conducted it to the Tiruttani river which unites with the Korttalaiyár. A tradition ascribes the diversion of the Pálár also to human agency, one Gunda Gópál Rao, probably a servant of one of the Rájás of Conjeeveram, being credited with having banked up the course of the old Pálár in order to bring the whole of the river past that capital. At Kondápuram, near Kávéripák, an inscription upon the walls of the temple describes its position as being south of the Pálár, whereas it is now to the north of the river.

Old course of certain rivers.

For most part of the year these rivers are dry, and when during the rains heavy freshes from the hills come down, the currents are so strong that navigation is impossible. They are impassable for but a few days at a time and the water subsides as speedily as it rises. Their beds are all composed of deep sand, and after the freshes have passed off channels called 'kassam' are dug, and the underflow of water, which is constant, being thus tapped, is carried to the banks and forms a sure means of irrigating neighbouring lands. In the flat and sandy plains of the district, and in its well-watered valleys, similar channels are dug, and the water springing from the soil is utilised in raising wet crops.

River channels.

CLIMATE. Temperature.

On the whole the climate of the district is healthy, because it is dry. The plain portion is hot, but never unbearably so, while the elevated plateau on the west enjoys a temperature which may

CHAP. I. CLIMATE. Temperature.

in this country be generally considered charming, the heat in the middle of the hottest day rarely rising to 95° in the shade. The only register kept of the temperature of the plains was recorded at Chittoor between February 1868 and January 1869, but the results are of doubtful value.

Winds.

The prevailing winds from April to September are south-westerly by day, but from the east and south-east by night. September is usually a still, close month, with light and varying winds, perhaps the most trying season of the year. By October the wind shifts to the north-east, and brings up the monsoon from that quarter, the signal for the commencement of the cool season. There are heavy rains during October and November, and the wind continues chiefly from the north-east until February, when its direction begins to shift, and it gradually veers round to the west. The land wind from this quarter brings in the hot weather, which is most severe during April and May. By June the south-west winds begin to carry up the south-west monsoon with occasional showers up to August. During these months the air is usually cool and pleasant.

Rainfall.

The annual rainfall is about 40 inches: detailed statistics will be found in the second volume. Cyclonic storms are not uncommon, and usually occur in May or October at the change of the monsoon. The most destructive, as far as North Arcot was concerned, occurred on May 2nd, 1872, when Vellore chiefly suffered. After a fall of nearly 14 inches within twelve hours some tanks above the town breached, causing the loss of many lives and the destruction of the whole of one of the suburbs.

GEOLOGY. Formations.

The geological formations[1] met with in this district may be conveniently classified into six groups, which may be arranged in their true order of superposition as follows:—

RECENT AND POST-TERTIARY.	6. Soils and sub-aerial deposits. 5. Alluvial deposits; fluviatile. 4. Lateritic sands, gravels and conglomerates.
MESOZOIC	3. Upper Gondwána series, Rajmahal or 'plant' beds.
AZOIC	2. Cuddapah series. 1. Gneissic series, with intrusive trappean and granitic rocks.

Gneissic series.

The gneissic series, which forms the basement on which rest all the other rocks, occupies by far the larger part of the whole area of the district, and it is only in the north-eastern and east-

[1] This account of the geology of the district consists of extracts from an article in the *Records of the Geological Survey of India*, vol. xii, part 4. It was written by Mr. Bruce Foote, F.G.S.

ern parts that younger rocks occur. The gneissic rocks include all the western part of the district, and form the rugged eastern scarp of the Mysore plateau. Eastward of the plateau are numerous spurs stretching away from it, and eastward of these again are numerous clusters of detached hills, some of considerable size and elevation and remarkable for their bold forms and great ruggedness. These occupy the gneiss area up to the very convenient geographical line formed by the north-west line of the Madras Railway, eastward of which the gneissic rocks soon disappear under newer formations, to be referred to separately further on. The gneissic area south of the Pálár shows the northern end of the Javádi mountains and the hills east and south-east of Vellore. Further to the south-east the gneiss area becomes comparatively flat, and no hills of any importance rise from its surface, the two hills of Wandiwash and Chetpat excepted.

CHAP. I. GEOLOGY. Gneissic series.

Returning to the north of the Pálár, the gneissic rocks are overlaid by great masses of quartzite and conglomerate belonging to the Cuddapah series, which form the greater part of the detached mountains collectively known as the Nagari mountains. The south end of the Vellakonda and the sacred hills of Tirupati to the north are also formed of rocks belonging to the same subdivision of the Cuddapah series. The tremendous lines of scarp and often vertical cliffs surrounding in many parts the Nagari and Tirupati mountains give a peculiar and grand character to the local landscape.

Cuddapah series.

South-eastward of the Nagari mountains lie three hill groups, viz., the Satyavéd, Alikur and Náyakkanpálaiyam hills, consisting of great beds of hard conglomerates and sandstones in the Satyavéd and the eastern half of the Alikúr hills, and of uncompacted conglomerates, clays and shales in the western half of the Alikúr hills and the Náyakkanpálaiyam group. Some of these beds are fossiliferous, and the fossils show them to belong to the upper division of the great Gondwána system, which includes all the plant-bearing beds in the peninsular area. The fossils agree in many cases, specially with those found in the Rajmahal beds of Bengal. South of the Náyakkanpálaiyam hills are other outcrops of the 'plant beds' lying between the Nagari river and the Korttalaiyár. South of these again and south also of the Pálár, the Upper Gondwánas reappear in a considerable number of small patches dotted over the surface of the eastern part of the gneissic area in the Arcot taluk.

Upper Gondwána rocks.

Much of the surface of the 'plant beds' is masked by lateritic deposits, which overlap also in many places on to the gneiss. They do not cover much ground in North Arcot. One of the

Lateritic rocks.

CHAP. I. GEOLOGY.

Alluvial formations.

uppermost places in the superposition of the rocks, but the lowest in point of elevation over the sea level, is occupied by the alluvial formations, which are all fluviatile. Although of very limited extent, they yet offer some points of considerable interest.

Soils.

The soils are of no special interest, but among the sub-aerial deposits, the enormous masses of talus which surround the mountains in the north-eastern part of the district are remarkable.

Metamorphic or Gneissic rocks.

It has already been pointed out that the rocks belonging to this group occupy by far the greatest part of the whole district. The predominant varieties are the massive obscurely bedded ones known among geologists as granite-gneiss and syenite-gneiss. The well-bedded fine-grained schistose varieties are much less frequently met with than in other parts of the great gneissic region, as in the Trichinopoly, Salem, Madras and Nellore districts, but they do appear locally among the coarse granitoid varieties, and occurrences of them will be described further on.

As in all the gneissic regions, the rocks show abundant signs of having been much disturbed, contorted and uptilted since their original deposition, and finally forced into series of great synclinal and anticlinal foldings, the edges of which may in some cases be easily traced along great distances.

A study of the direction of the edges or outcrops of the beds, technically called the 'strike' of the bedding, shows that in the south-eastern part of the district the beds have a strike from south-south-west to north-north-east, but as they are traced northward, they are found to trend till they run north-south, which is the prevailing strike in the central parts of the district. If followed into the extreme northern part, they will be found to have trended to north-north-west. This change in the strike is part of a great curve formed by the metamorphic rocks in the latitude of Madras, and affecting the whole gneissic series eastward of the Mysore plateau.

In describing the general appearance of the central part of the district, Mr. Oldham in his notes remarks very aptly: "Speaking "generally, the whole area might be said to be one of quartzo-"felspathic gneiss, commonly syenitoid or granitoid." "When, "however, I say quartzo-felspathic, I do not mean to imply that "these minerals only constitute the rock, but that they preponde-"rate largely, and that the hornblende and mica which also enter "into its composition play a very subordinate part, except in "occasional bands." These remarks apply equally well to the general features of the rugged flanks of the plateau edge as seen in the Sainagunta and Mogili gháts and at Sátghur, and to the whole western part of the district in fact. They apply also fully to the gneiss of the eastern side of the district north of the Pálár,

CHAP. I. GEOLOGY. — Metamorphic or Gneissic rocks.

but less so to the rocks of the south-eastern taluks. Here and around Vellore the well-bedded varieties are rather more largely developed, and they are much less largely quartzo-felspathic in constitution.

Commencing in the western part of the gneissic area, the eastern edge of the Mysore plateau consists mainly of coarse granitoid gneiss, which is well seen in the hills west of Ambúr, at Sátghur, and thence generally on the Sainagunta and Mogili gháts leading to Palmanér, all around that place and northward of it, very conspicuously in the Gam Kondas and other hills stretching away to Ávulapalli Drúg. The same description applies to the whole of the country between Vellore and Chittoor, and to the very hilly tract lying between the Ponné river and the Madras Railway. East of the railway too the granitoid gneiss extends under the younger Cuddapah and Gondwána rock series.

In the southern part of the gneissic area, forming the northern end of the Javádi mountains, are great bands of granitoid gneiss, some of them remarkable for their coarseness of texture, which is blotchy and often markedly porphyritic, *e.g.*, the rock forming the mass of the Pallikondai mountain and of the Vániyambádi [2] trigonometrical station hill, some three or four miles to the south-south-east. Similar 'blotchy' gneiss is of very common occurrence elsewhere. In the Pallikondai hill the rock is of a hornblendic variety and of grey colour.

A remarkably handsome variety of porphyritic hornblendic granite gneiss of rich green and pink colours occurs at the western base of the Nagari Nose mountain, and is exposed in several cuttings along the Madras railway (north-west line). Masses and boulders of this variety are to be seen included in large numbers in the basement conglomerate of the Upper Gondwána rocks in the Pyanúr area south of the Nagari river.

The contrast between the rich dark-green hornblendic matrix and the large pink or salmon-coloured crystals of orthoclase makes the rock a very handsome example of a typical porphyritic granite gneiss.

A by no means uncommon form of the granite gneiss is one in which the beds include masses of what appears to be an older gneiss, sometimes micaceous, sometimes hornblendic. The included masses present generally sub-angular forms, but others are well rounded, as if they had been boulders, and others again unquestionably angular, so that the mass looks sometimes conglomeratic, sometimes breccioid. In other places again, and often

[2] This place must not be confounded with the town and railway station of the same name on the northern boundary of the Salem district.

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within the same beds and at no great distance, the inclusions have the appearance of having been altered by concretionary segregation. The included masses are mostly of finer grain and of more highly micaceous or hornblendic character than the surrounding masses. There can be little doubt that in some cases the included fragments are really remains of older rocks, and the whole rock a true breccia or conglomerate. In other cases, however, the inclusions are in all probability mere local aggregations of the prevalent or most striking mineral. An example of this latter kind is to be seen in the Chikeli Drúg hill, a little to the south-east of Kaniyambádi pass, nine miles south of Vellore. Good examples of this quasi-conglomeratic and brecciated structure may be seen to the west of the Nagari railway station, in the low hills close to the railway at Bánavaram (the Sholinghur station), and in the southern part of the district at and to the south of Chetpat, and at Arimbákkam, eight miles to the east-south-east of Arcot, and on the eastern side of the district at Gudinankarúr, six or eight miles east of Wandiwash.

Of the more schistose bands of gneiss, the most noteworthy is the great micaceous band forming the Kailásagiri peak, six miles south-west-by-south of Vellore, which rises in a bold peak to an elevation of 2,743 feet above sea level. This gneiss is compact and massive in structure, and has been uptilted to a very high angle, the true dip of the beds varying from 80° to 85°. The strike of the beds corresponds with the direction of the highest part of the ridge and is north 5° east.

Beds of magnetic iron occur here and there in the south-west corner of the district, *e.g.*, to the south of Gudiyáttam, half a mile south of the great tank, and again two and a half miles west of Kátpádi railway station. These beds are small, but interesting, as there can be no doubt that they are representatives of some of the numerous beds occurring south of the Javádi hills in Salem district. Others of these richly ferruginous beds are in all probability represented by various quartzose gneiss beds, very strongly iron-stained, which occur in this quarter. The quartz of these beds is stained of purplish or reddish colour, and frequently shows a brown ferruginous incrustation in the cavities between the laminæ, as also numerous little cavities in the lamination which appear once to have been filled by some mineral or other now wanting. These beds have a striking resemblance to the poorly ferruginous parts of many of the typical magnetic iron beds of the Salem region. Good examples of these iron-stained beds are to be seen in the Vellore hills and in the large detached hill three miles south of Vellore.

Beds of hornblendic ferruginous gneiss occur chiefly in the tract of country between Arcot and Wandiwash. To the eastward of this hornblendic band lies a broad zone of highly granitoid quartzo-felspathic gneiss which extends to the boundary of the Chingleput district; the great Wandiwash hill belongs to this band. In the more granitoid region north of the Pálár hornblendic forms are much less common than the quartzo-felspathic forms of gneiss.

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Ferruginous beds were noted by Mr. C. Æ. Oldham, chiefly near the Ponné river, *e.g.*, north of Sellampálaiyam; south-west of Bonupalli, eight or ten miles to the north-north-westward; and lastly, to the north of Mahimandalum, on the western side of the Ponné river.

Talcose beds occur only in a few places, and three were noted by Mr. Oldham, all of small importance.

In a district where so large an area is occupied by intensely granitoid gneiss, its characteristic features are of course to be seen to great advantage in many places, particularly along the two lines of railway diverging from Arkonam junction. Especially characteristic are the hills of Maddúr Drúg and Tiruttani on the north-west line, and those of Sholinghur, Nílakantaráyapuram and Gudiyáttam on the south-west line; all of these show great bare masses of rock with tors, and here and there great precipitous cliffs. Of the tors the two most remarkable groups are both near Nagari; the one, between the railway and the foot of the Nagari mountain close to the northern end of the pass traversed by the old high road to Cuddapah; the other, at Nediyam on the north bank of the Nagari river, four miles above the railway bridge. Both groups are of great size and height and form conspicuous objects from considerable distances.

Trap dykes.

The crystalline rocks intruded into the gneissic series are referable to four groups—granite veins, felspathic porphyries, quartz veins and trap dykes. Of the four groups, the last is by far the most important, and the first the least so, granite veins being very rare and of small size; the trap dykes, on the contrary, are extremely numerous, and many of them of large size, and forming important features in the landscape in very many parts of the country.

The great majority of the dykes consist of coarse hornblendic trap, a form of greenstone, and there is in very many cases a direct proportion between the size of the dyke and the coarseness of the rock composing it. Many of the dykes are markedly porphyritic in structure, including numerous crystals of felspar in a hornblendic or hornblendo-felspathic matrix. If classified according to the directions of their courses, the dykes will be

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found referable to two great systems, of which the one runs north to south, roughly speaking, and the other east-by-north to west-by-south. In the former, the course is less constant, and varies by 5° or so east or west of north. A relatively small number of dykes does not come under either of these two systems, but they offer no special differences in mineral character or otherwise, to require any detailed notice. There is no marked difference between the trap rock forming the members of the two systems, and they appear to belong to the same geological age. Both agree in being older than the Cuddapah system of rocks which they nowhere intrude into. The relations of the dykes at their crossings are obscure in all cases in this district, but the intersections of other dykes of precisely similar rock and running in corresponding directions in more northerly parts of the gneiss area, *e.g.*, in Bellary district and the Raichúr doab, appear to show that the filling up of both sets of fissures by the irruptive material was simultaneous, no difference or change of any kind being observable. Very large and important dykes, such as the great dyke at Sholinghur and some in the Maddúr and Tiruttani hills, rise to heights of several hundred feet above the surface, and form bold and striking ridges and crests.

Some of the dykes, such as the Sholinghur dyke and the Perumálrájapet dyke, some eight miles to the east, are distinctly and strongly magnetic and affect the compass needle greatly. This phenomenon was also noticed in the dyke lying to the west-by-south of the village of Ponné, but not elsewhere.

The courses of many of the dykes may be followed for twenty or thirty miles or even more, and the larger ones have a width of from 50 to 100 paces. The network formed by these multitudinous dykes is one of the most remarkable displays of trappean injection known in any country.

The Cuddapah series.

The representatives of the Cuddapah series are confined to the north-eastern corner of the district, where they form, as already pointed out, the main mass of the Nagari group of mountains, the Tirupati hills, and the extreme south end of the Vellakonda range. The remarkable and highly picturesque scenery of this region is due to the great mural scarps into which the massive quartzite beds have been worn.

Many of the quartzite beds which rest on the gneiss in marked unconformity are coarsely conglomeratic, including pebbles of gneiss, quartz and occasionally of ribbon jasper. The quartzites are generally very massive and semi-vitreous in texture, and occur in thick beds which often show but little lamination. The surface of some of the beds is often covered thickly with small annular markings, as if they had been stamped all over with an

ordinary wad-cutter. No satisfactory explanation of the cause of these markings had yet been offered. In some beds the rippling caused by current action has been beautifully preserved.

The Cuddapah series.

The prevalent colours of the quartzites are pale greys and drabs, all weathering to shades of buff or pale orange. The principal lines of scarp face the south, *e.g.*, those of the Nagari Nose, the Náráyanavanam peak, the Sadásivamalai, and the Tirupati mountains, but very fine east and west scarps are seen on the Ránsagiri. The three scarps first mentioned are in many parts quite vertical and form perfectly bare walls of rock from a few hundred to over a thousand feet in height.

The whole of the beds exposed in the North Arcot district belong to the second lowest of the divisions recognized in the Cuddapah series by Mr. King[3] and called by him the Nagari series, a yet lower series underlying the Nagari beds having been recognized by him further north near the Pápagni river in Cuddapah district.

The most southerly recognized outcrop of the Cuddapah beds is the Nagari Nose mountain, but it is not improbable that some large detached masses of quartzite occurring at the base of the Gondwána rocks at Nayakkanpálaiyam, eight miles further south-east, ought to be regarded as relics of the basement bed of the Nagari group.

The Upper Gondwána series, Rajmahal group.

The great series of rocks known under the name of the Upper Gondwána, which occupy a very important position in the northern half of the peninsular area, are represented in the Madras region by considerable formations of great interest, because they contain fossil plants, some of which are identical with those occurring in the Upper Gondwána formations of the Rajmahal hills in Bengal.

Their representatives in North Arcot occur in two positions, one north, the other south of the Pálár. In the first we may conveniently distinguish three localities, the Satyavéd, the Alikúr, and the Pyanúr areas; in the second there are some twenty-five small patches scattered widely over the surface of the gneissic area in the Arcot taluk, a few miles south-west of Conjeeveram. The most important and the greater number of these patches lie around the great Mámandúr irrigation tank, and hence the group may be conveniently called the Mámandúr group. Three small outlying patches occur twenty miles further to the south-west in the Arni zemindári. This group of small patches is evidently the remnant of a once extensive spread of the Upper Gondwána rocks, which, in all probability, was continuous with the beds of the same age to the north and north-east, and very

[3] See *Memoirs of the Geological Survey of India*, vol. viii.

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The Upper Gondwána series, Rajmahal group.

likely also extended far enough southward to join the Úttattúr 'plant beds' in Trichinopoly district.

Great denudation, especially in the area south of the Pálár, beginning probably in precretaceous times, separated the Gondwána rocks into the many detached outliers now enumerated, while their surface is largely obscured by the overlying younger lateritic and alluvial formations.

The whole of the Satyavéd outcrop is made up of alternate bands of hard conglomerates and sandstones, many hundred feet in aggregate thickness, and of more or less red colour. The conglomerates are made up of large well rounded smooth quartzite pebbles, with a small number of similar pebbles of granite gneiss, the whole strongly cemented by a matrix of variable character, sometimes argillo-ferruginous, ferrugino-arenaceous, or more rarely siliceo-calcareous. The sandstones are mostly rather gritty in texture, and contain here and there a few plant remains, among which Mr. King found a frond of *Dictyozamites indicus*, one of the most characteristic Rajmahal plants. The beds have a generally eastward dip at moderate angles. The area of the outcrop is nearly co-extensive with that of the hill group, and measures about sixteen miles.

The Alikúr area is separated from the foregoing only by the narrow alluvial valley of the Náráyanavanam river, under which the beds are doubtless continuous. The eastern half of the Alikúr hill group consists of hard conglomerates and sandstones, apparently continuations of the beds forming the south-western part of the Satyavéd hills. Like these they have a more or less easterly dip, and disappear under the lateritic beds, which lap round the eastern foot of the hills, and which, together with the great talus which has accumulated on the base of the slopes, completely obscure all the relations between the lower and upper rocks. No fossils were found in the Alikúr hills. The hard beds occupy only about a third of the area of the Alikúr outcrop, the remainder being formed of the soft beds, which appear to underlie the hard beds conformably. No section was found showing these two dissimilar series in contact where they approach each other in the centre of the Alikúr hill group, but as far as the rounded outlines of the hills at that point serve to guide the eye, there is an undoubted dip of the softer beds under the hard conglomerate. No sign of any fault could be traced, but from the peculiar nature of the case, a fault of great importance might well exist, and yet be completely hidden by the vast quantity of debris and talus which everywhere almost cumber the surface even of steep slopes. The nearest visible approach of the two series is a short narrow east and west ridge abutting at right angles against

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The Upper Gondwána series, Rajmahal group.

the hard basement conglomerate of the Satyavéd series, which here forms a conspicuous north and south ridge parallel with several of similar character further east, each representing a great conglomerate bed. The valleys running down north and south from the cross ridge are the two principal ones in the central mass of the hills, and their depth, which is considerable, is due to the greater softness of the underlying beds as compared with the overlying set.

The soft beds consist of conglomerates, gritty clays, and shales of white or grey colours. Even the coarsest conglomerates at the very base of the series are uncompacted and soft, the enclosed pebbles and boulders of gneiss and quartzite merely lying embedded in very friable more or less clayey grit consisting of quartzose debris of gneissic origin. The slopes of the hills composed of such soft beds are deeply covered by debris, while but few of the rain gullies descending from higher slopes penetrate sufficiently to expose the rocks *in situ*. The Náyakkanpálaiyam hills, which occupy the southern part of the Alikúr area, consist, as far as seen, entirely of the soft beds which have trended round from a north and south strike in the Alikúr hills to one running west-north-west to east-south-east.

Numerous plant remains were obtained from a clay bed exposed in one of the principal rain gully sections east of Náyakkanpálaiyam village. Amongst the remains were parts of *Tæniopteris*, *Dictyozamites*, *Ptilophyllum*, &c., all characteristic Rajmahal plants. Unfortunately the specimens, which are beautifully distinct when freshly extracted, are utterly ruined by the shrinkage of the wet clay as it dries.

Near the village of Náyakkanpálaiyam the basement bed includes enormous masses of conglomeratic quartzite, some of them from 800 to 1,000 cubic feet in bulk; these are very probably relics of the basement bed of the Cuddapah series, which is so generally represented a few miles to the north-west and north in the great scarps of the Nagari mountain and the Rámagiri. These great quartzite masses are not seen resting actually on the gneiss surface, but it can only be a few feet below the local surface of the slope; it is only reasonable, therefore, to look upon them as ruins of the once existing conglomerate bed forming locally the base of the Cuddapah rocks, which was nearly all removed by denudation. In view of the enormous amount of denudation the shapes of the Nagari mountains show them to have undergone, there can be no difficulty in accepting this solution of the problem. If the blocks be not, however, really *in situ*, their existence in their present position is even more remarkable, as no known agency but that of floating ice can explain their presence.

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The Upper Gondwána series, Rajmahal group.

The appeal to glacial agency in such a southerly latitude would not be justified except on the very strongest evidence.

The character of the rocks in the Pyanúr area changes slightly, the included boulders and pebbles in the conglomerates are more frequently of gneissic origin and less exclusively of quartzite. They are embedded in equally soft and uncompacted beds. Fossils are very rare; none were found except in a friable sandstone exposed in the left bank of the Nagari river opposite Chittapuram, a little below the junction of the Tiruttani river. Fragments of *Tæniopteris* and *Dictyozamites* were here obtained.

The basement conglomerate in many parts of the Pyanúr area was deposited around and includes large water-worn masses of gneiss forming boulder beds similar to those occurring in the base of the plant beds at Úttattúr and elsewhere in Trichinopoly district, and similarly at various places in the Ongole group of outcrops in Nellore district.

Of the outcrops of this series to the south of the Pálár the most interesting is that at Dúsi, which Mr. Oldham thus describes:— "This locality and its immediate neighbourhood, though not "affording even a single tolerable section, yielded to me the great "majority of the fossil specimens, all plants, which I succeeded "in procuring from this series of beds." "In a small tank west "of the village I noticed a little yellow sandstone in flat beds "just appearing above the surface of the water when low, and "from the bund of this tank, which is largely composed of the "pieces of this and other beds thrown up when it was dug, I "succeeded in obtaining numerous plant remains." "I could not "discover a trace of mollusca or other animal remains, but in "some of the beds of sandstone the plant remains are very "abundant."

"Until they have been more carefully examined and com-"pared, I cannot attempt to do more than indicate their general "character, which is very similar to that of the Rajmahal flora, "presenting *Palæozamia* (*Ptilophyllum*), *Tæniopteris ? Stangerites* "(*Angiopteridium*), *Pecopteris*, and *Sphenopteris*." "I obtained "also specimens of circinnate vernation of ferns. These remains "occur in great abundance, principally in thin-bedded yellow "sand-stones, but some of them also in a coarser thick-bedded "sand-stone." "This strip of sandstone has its limits narrowly "defined by the appearance of gneiss *in situ* closely on the east, "north, and south, and at no great distance on the west also."

"About four miles west of Dúsi is the best section seen of "these beds. This is exposed in the old supply channel which "runs from the river Pálár near Umayápuram to the large Má-"mandúr tank, in the banks of which and the small water-course

" adjoining a fair section is exhibited, showing a greater thickness " of beds than I was able to discover in any other locality."

The lateritic formations.

Of the numerous spreads of the lateritic rocks which fringe the eastern coast of the peninsula between Latitude 13° 50′ and 11° 20′ north, only a few extend inland sufficiently far westward to come within the limits of the North Arcot district. There is, however, abundant evidence that these rocks had formerly a much wider westerly extension, and that their present western limits are boundaries of denudation and not of deposition. The chief outcrops of them occur along or close to the eastern boundary of the district, and are in most cases seen to rest upon the Upper Gondwána beds, to which, however, they are markedly unconformable, and in many cases they overlap on to the gneiss. All the outcrops of importance lie to the north of the Pálár.

The most southerly patch of lateritic beds requiring notice lies between the north bank of the Pálár and the alluvium of the Korttalaiyár, about twelve miles east of Arcot town. It is in reality only the extreme western end of a very large lateritic area which occupies further eastward nearly the whole of the Conjeeveram taluk. The prevalent rock here seen is of a red sandy variety with scattered patches of ferruginous gravel.

To the north of the Korttalaiyár the laterite occurs in the form of an enormously coarse shingle or generally uncompacted conglomerate, such as may be seen at and to the south of the Chinnammápéttai railway station. Further north the surface of the Pyanúr area of Rajmahal beds is widely covered with an equally coarse shingle associated with large quantities of ferruginous gravel and clay binding the whole into a semi-compact conglomerate, which is the general character of the lateritic beds further north round the base of the Náyakkanpálaiyam, Alikúr and Satyavéd hills, the coarseness of the included shingle and the amount of ferruginous cement associated with it being locally of variable quantities. Where the shingle, which consists almost entirely of quartzite, attains a great degree of coarseness, the ferruginous matrix is often masked to a very great extent, the peculiar vermicular cavities so characteristic of non-conglomeratic laterite are never seen, and the correlation of the two varieties as members of one and the same geological formation is made entirely upon stratigraphical grounds.

The principal lateritic areas lying westward of the eastern boundary of the district are those along the western base of the Rámagiri and the eastern base of the Nagari mountains, and some spreads in the valley of the Swarnamukhi river near the Madras railway at Karakambádi. In the two first of these areas

The lateritic formations.

the rock is much less coarsely conglomeratic than around the Alikúr and Satyavéd hills and over the Pyanúr area.

The surface of the Pyanúr laterite patch is very thickly strewn with the extremely coarse quartzite shingle weathered out of the underlying conglomerate, and in many places progress even on foot is by no means easy across the great smooth and highly slippery stones. The surface is so extremely stony that great tracts remain waste. That a very flat country should be so inaccessible owing to the thickly strewn products of partial weathering of the rocks forming the surface is a very singular phenomenon.

Remains of lateritic beds are very numerous to the westward of the present westerly boundaries of the formation. Many such remains were noted as much as six or eight miles away from the nearest of the undisturbed beds, and a closer search of the country would probably show such ruins even far further in that direction. The greater westward extension of the lateritic rocks, before adverted to, is thus abundantly proved.

Proofs that the lateritic formations were, in part at least, formed since man's advent on earth are numerously met with in the North Arcot laterite patches in the form of well-shaped chipped implements of palæolithic types made of quartzite. Many of these were discovered by the geological surveyors in nearly all the lateritic patches, and in many cases also among the debris marking the sites of the now denuded parts of the old extensions, *e.g.*, among the gravelly ferruginous debris lying in the surface of the gneiss at and around the Arkonam railway junction at an elevation of more than 300 feet above sea level.

The highest elevations to which the implement-bearing lateritic rocks have been traced in this region are the neighbourhood of the Madras Railway at Karakambádi, in the Swarnamukhi valley, and the westernmost slopes of the Náyakkanpálaiyam hills ; in the former case, the implements occur at an elevation of 370 feet above sea level, in the latter, at a probable elevation of between 500 and 600 feet. The Karakambádi beds yielded a great number of fine implements to the search of Mr. W. R. Robinson, C.E., Chief Engineer of the Madras Railway, when resident engineer at that place.

There can be little doubt that the great accumulations of well rolled quartzite shingle which rest on the southern bank of the Nagari Nose mountain and on the flanks of some of the mountains further north must, in part at least, be reckoned as of the age of the lateritic period, as they correspond closely in position and mineral character with the higher-lying lateritic beds just mentioned. The Nagari Nose shingle bed is deeply stained

with iron from the ferruginous matrix which must have once surrounded the perfectly non-ferruginous quartzite shingle, for that is the only way of accounting for the deep and indelible purple-red colour borne by the natural pale-coloured quartzite. As now seen, the shingle suggests instantly the idea of its being an old raised beach.

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The origin of the lateritic formations, owing to the total absence of all organic remains (the chipped implements being only indirectly of organic origin), is wrapped in obscurity and doubt. Three theories have been propounded to explain the existence of these formations which fringe the western and eastern sides of the peninsula from a little south of Bombay right round to Cuttack and still further north. The three theories have been discussed at some length, each having something in its favour, but they are still *sub judice*, and this is not the place for continuing the discussion.[4]

They may be briefly designated as the marine, the fluviatile and the sub-aerial. As at present seen, none is altogether sufficient to explain the various difficulties, and it is very possible that all three must be enlisted before more light can be thrown on the subject.

The alluvial formations.

The alluvia occurring within the North Arcot district are all of fluviatile origin and occupy the valleys of the principal rivers, but are developed only to a very moderate extent, and would offer no points of special interest were it not that in two cases there is evidence of the rivers having changed their courses widely and formed a second series of deposits in other valleys.

The first of these cases is that of the Pálár, the principal river of the district, which now flows into the sea forty-two miles south of Madras, but which formerly flowed down what is now reckoned the alluvial valley of the Korttalaiyár river and entered the sea somewhere to the north of Madras, probably between Ennore and Pulicat. A glance at the geological map will show that the present valley of the Pálár is very disproportionate in size to the river, and equally that the alluvium of the Korttalaiyár is greatly disproportionate to its river, which now flows in a deep channel.

The two valleys diverge at a place about ten miles east of the town of Arcot, and a small stream (or irrigation channel) still

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4 For the discussion of these theories, the reader is referred to Mr. Foote's papers on the subject of Stone Implements in Southern India in the *Madras Literary Journal* for October 1866, the *Quarterly Journal of the Geological Society for* 1886, p. 484, and the *Memoirs of the Geological Survey of India*, vol. x. pp. 54, &c. Also *Stone Implements of Great Britain* by John Evans, D.C.L., F.R.S., and lastly, to the *Résumé* by Mr. W. T. Blanford in the *Manual of the Geology of India* (vol. i. pp. 368–370), of the facts known about the low-level laterite.

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The alluvial formations.

branches from the Pálár here and flows down the Korttalaiyár valley for many miles and eventually joins the latter river. To this stream the natives have given the Sanskrit name of Vriddakshíranadi or 'old milk river,' the Tamil name of the main river 'Pálár,' also signifying 'milk river.' The alluvium occupying this valley consists of coarse gritty loose silicious sand of gneissic origin.

The second case is that of the Nagari river, which in former times appears to have fallen into the Náráyanavanam river, just south of Rámagiri, and close to the village of Nágalápuram. The present course of the river lies down the old alluvial valley for a little more than three miles east from the railway bridge. It then turns sharply south-east, leaves the alluvium, and flows through a cutting in the gneiss about a mile and a half long and falls into the Tiruttani river, which joins the Korttalaiyár a few miles further east. In consequence of this the broad alluvial valley which runs between the Nagari mountain and the Alikúr hills is now drained only by small streams and artificial channels. The alluvia deposited by the Nagari river both in its old and new valleys consist almost entirely of coarse gritty sand like that of the Pálár. No alluvium appears to be deposited at present, but the streams seem to be cutting their beds deeper and deeper every season.

No information was procurable from the natives as to the time when these changes took place, but the probability is that, geologically speaking, they are of very recent date, as may be inferred in the case of the Pálár from the name given to the channel which still falls into the Korttalaiyár; and in the case of the Nagari river, from the fact that the cutting through the gneiss by which the river escapes from its old alluvial valley presents every appearance of being of artificial origin, and must in that case have been the work of a people boasting some considerable civilization.

The soils and sub-aerial formations.

Of the soils in North Arcot little need be said; they appear, as a rule, to be the product of the weathering of the local rocks, or to have been brought from but trifling distances by pluvial action. The prevalent soils are red, and of these the sandy form is the most common.

Of the sub-aerial formations the only really interesting and important ones are the taluses around the quartzite-capped mountains in the north-eastern corner of the district. As already pointed out, the talus accumulations are two-fold, and consist partly of great collections of well rounded shingle referable to the lateritic period, and above them of the angular unrolled debris detached from the great scarps by atmospheric agencies, which debris here now shows the deep ferruginous stain characteristic of

the lateritic shingle beds. On a greatly smaller scale, but still of considerable importance, are the talus accumulations on and around the newer Rajmahal and lateritic formations in the Satyavéd, Alikúr and Pyanúr areas. These consist in both cases almost entirely of well rolled quartzite shingle weathered out from the many important conglomerated beds occurring in both series.

The soils and sub-aerial formations.

Economic geology.

The information on this branch is not so complete as might be wished, owing to the non-completion of the survey of the district. The granitoid gneiss occupying the greater part of the gneissic area offers nothing but building stone; but of this much is of great beauty and value, and has been very largely used for many large native buildings, as the forts at Vellore and elsewhere, and among European buildings, particularly in the construction of many railway stations, bridges and culverts.

Kaolin.

The highly felspathic varieties of the granite gneiss are occasionally so greatly decomposed as to appear to offer sources for the collection of kaolin or China clay, but Mr. Bruce Foote is of opinion that none of them are sufficiently rich in decomposed felspar to be of much importance. The extent to which the Indian rocks have been penetrated by decomposition is greatly less than the Cornish rocks, and the quantity of clay which would therefore be procurable in India would, area for area, be greatly smaller than in Cornwall. Added to this very serious disadvantage is the difficulty of a suitable water-supply. To insure the preparation of kaolin of good colour, which alone commands a high price, a very large supply of perfectly limpid water is a *sine qua non*. This is not always easy to obtain even in a rainy climate like that of the south-west of England, where running streams are of frequent occurrence, and in a dry climate like that of the Carnatic this want could only be met by the construction of special reservoirs of large size, in which the water could be allowed to stand for many months after the rainy season, till all the suspended particles of ferruginous clay had settled, and the water itself has become perfectly limpid. If the great cost of providing such supplies of limpid water free from saline matter in an eminently dry country be taken into consideration, together with the fact that the kaoliniferous decomposed rock occurs in greatly smaller quantity, and is generally much less free from ferruginous staining due to the filtration through the almost universally overlying red soil, the conclusion seems inevitable that the prospects of establishing profitable China clay works in North Arcot are not very promising.

Building stones.

To return to the subject of building stones: the rocks of the gneissic series alone offer an inexhaustible supply, and localities

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which would yield first-rate material in any quantity might be enumerated by the score, if needful. The mention of only a few must, however, suffice; these are Pallikondai hill, Vellore, Wandiwash and Chetpat south of the Páiár, and Ránipéttai, Sholinghur and Tiruttani north of that river.

The quartzites of the Cuddapah series are too hard and expensive in working to be used except as rough building stones; and the sandstones of the Rajmahal beds are not hard enough, except in a very few cases, to be of much value for first-class purposes, such as millstones or grindstones. Nor are any of the clay beds in the Alikúr and Pyanúr areas of sufficiently good colour to be of much value. The pottery clays used by the people are taken from the younger lateritic or alluvial deposits, and are, as a rule, of very inferior quality.

FLORA.

The principal forest trees are the áe'chá (*Hardwickia binata*), azhinjil (*Alangium lamarkii*), alli (*Memecylon tinctoria*), bamboo (male and female), blackwood (*Dalbergia latifolia*), billu (*Chloroxylon*), búraga (*Bombax malabaricum*), chandanam or red sanders (*Pterocarpus santalinum*), cherunji (*Buchanania latifolia*), gotte (*Zizyphus xylopyra*), iluppai (*Bassia latifolia*), jambu (*Prosopis spicigera*), karu-vél (*Acacia arabica*), kungili (*Boswellia glabra*), káttuvágai (*Albizzia odoratissima*), kalturinji (*Albizzia stipulata*), mango (*Mangifera Indica*), mailam (*Vitex altissima*), mushti (*Strychnos nux-vomica*), nalla-maddi (*Terminalia tomentosa*), namma (*Conocarpus latifolia*), neem (*Melia azedarach*), pálai (*Mimusops hexandra*), pogada (*Mimusops elengi*), panasa (*Butea frondosa*), pádari (*Stereospermum chelonoides*), patsari (*Dalbergia paniculata*), pungam (*Pongamia glabra*), chandra (*Acacia catechu*), satinwood, soap-nut (*Sapindus emarginatus*), tella-maddi (*Terminalia arjuna*), turinji (*Albizzia amara*), tandra (*Terminalia valerica*), tamarind, tukki (*Diospyros melanoxylon*), ulinda (*Diospyros capitellata*), yelliturn (*Dichrostachys cineria*), vodisha (*Cluytia collina*), vágai (*Albizzia lebbek*), vel-vágai (*Acacia leucophlea*), véngai (*Pterocarpus marsupium*), wood-apple (*Feronia elephantum*). Of these the turinji is the most plentiful. It is a hardy tree, growing between the gneiss boulders of the hills, and when felled renews itself in six or eight years. The most valuable tree is the red sanders, used by the natives for carving idols, plates, &c., for rice-beaters, frames of carts and door-posts, as white ants will not touch it. It only grows in North Arcot, Cuddapah and Kurnool, and is largely exported in billets as dunnage to Europe, where a red dye is extracted from it. Its colour is garnet, deepening on exposure, and the dye, a permanent deep reddish brown, is extracted in alcohol. Teak and blackwood, small but useful, and sandalwood, which is very valuable, are found in the Vellore and

Pólúr jungles. The two South Indian sál trees (*Shorea laccifera* and *tambergia*) are valuable timbers, but not many ripe trees have survived overworking in past years, though a good deal is coming on. The graft mangoes of North Arcot, not of course found in the forests, but carefully cultivated, are celebrated. Much of the fruit is, in the season, sent to Madras, and of late years Parsee merchants of Bombay have been considerable purchasers, importing the fruit by rail into that presidency town. The jungle products are honey, bees'-wax, lac, barks and seeds used in dyeing and tanning, soap-nuts, wild fibrous plants, medicinal herbs and the like. These are collected and sold free of tax by the semi-aboriginal tribes who inhabit the hills, named Irulas and Yánádis.

List of trees.

The following is a list of trees, with a note on the value and the uses of each :—

No.	Scientific and vernacular names.	Uses.
1	*Acacia arabica* ... Karu-vél, *Tam.* Nalla-tumma, *Tel.*	The gum is used in place of gum arabic; the bark for medicinal purposes and tanning leather; the leaves, after being burnt and mixed with cocoanut-oil, for external application to itch; the seeds and pods as articles of food for sheep, goats, &c., and the timber for making ploughshares, wheels, &c.
2	*Acacia farnesiana* ... Vadayvalli, *Tam.* Kastúri, *Tel.*	Only used for firewood.
3	*Acacia ferruginea* ... Vel-vél, *Tam.* Tumma, *Tel.*	The bark forms an ingredient in the manufacture of arrack.
4	*Acacia leucophlæa* ... Vel vél, *Tam.* Tella tumma, *Tel.*	The fibre prepared from its bark is used for large fishing nets and coarse kinds of cordage; the wood is only valued as fuel.
5	*Acacia sundra* ... Karungáli, *Tam.* Chandra, *Tel.*	Well suited for fencing-posts and rice pestles.
6	*Ægle marmelos* ... Vilvam, *Tam.* Márédu, Tel.	The root, bark, leaves and fruit are all medicinally used. The fruit alone is the best remedy for diarrhœa and dysentery. Native drums are made of this wood, and the tree is considered by the natives to be sacred to Siva.
7	*Agati grandiflora* ... Agatti, *Tam.* Avisi, *Tel.*	The wood is only fit for fuel, and the tree is generally planted to support and shelter the piper-betel.
8	*Ailanthus excelsa* ... Periyamaram, *Tam.* Pedda mánu, *Tel.*	The wood is used for pandals, sword handles, sheaths for spears, &c.
9	*Alangium lamarkii* ... Azhinjil, *Tam.* Ûdaga, *Tel.*	This is a most beautiful wood, but of small size. It does not appear to be known much, but from specimens in the Forest office, I have no doubt that if known it would be largely used for small articles of furniture, inlaying, veneer, &c.; wooden bells tied to the neck of the leading bull of a herd are made of this wood.

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No.	Scientific and vernacular names.	Uses.
10	*Albizzia amara* ... Turinji, *Tam.* Sícarani, *Tel.*	One of the best and most plentiful trees for railway fuel.
11	*Albizzia lebbek* ... Káttu-vágai, *Tam.* Dirisena or bági, *Tel.*	The wood is used for beams in building, for sugar mills, pestles, mortars and plough-shares, and sometimes for furniture for which it is well suited if carefully selected from large well grown trees.
12	*Albizzia odoratissima* ... Káṭṭu vágai, *Tam.* Dirisena, *Tel.*	Carts and naves of felloes of wheels are made of this wood; it is also useful for house-building and general purposes of carpentry.
13	*Albizzia stipulata* ... Káṭṭu vágai, *Tam.* Dirisena, *Tel.*	Adapted for cabinet making, furniture, cart-wheels, bells for cattle and other purposes.
14	*Alphonsea lutea* ... ————, *Tam.* Chireduddnga, *Tel.*	For fuel.
15	*Amanoa collina* ... Wódugu, *Tam.* Wodesha, *Tel.*	The wood is useful for carpentry, but of small size; a good fuel wood.
16	*Anacardium occidentale.* Mundiri, *Tam.* Munta mámidi, *Tel.*	One of the best woods for charcoal for iron-smiths. The oil from the nut is applied to floors, or wooden rafters of houses, to keep away white ants. Its gum collected from the roots is substituted for gum arabic and forms a good varnish.
17	*Areca catechu* ... ... Pákku, *Tam.* Póka, *Tel.*	The nuts are chewed by the natives, and are said to preserve the teeth.
18	*Artocarpus integrifolia.* Palá, *Tam.* Panasa, *Tel.*	The wood is in general use for building boats and for all furniture, musical instruments, ornamental works, &c. The fruit when green and the pulp and seeds when ripe are used in curries, and the fruit itself is eaten when ripe.
19	*Atalantia monophylla* ... Káttu Elimic'chai, *Tam.* Adavi nimma, *Tel.*	Only used for cabinet purposes, as it is of small size.
20	*Azadirachta indica* ... Véppam, *Tam.* Vépa, *Tel.*	The leaves, bark, seeds and oil are all medicinally used by natives, and the wood is fit for ornamental purposes.
21	*Bassia latifolia* ... Iluppai, *Tam.* Ippa, *Tel.*	The flowers are eaten raw and used in distilling arrack. The wood is used for door and window frames and naves and felloes of wheels.
22	*Bassia longifolia* ... Iluppai, *Tam.* Ippa, *Tel.*	The wood is used for dhonies, bridges and house-building. It is said to be a good wood for trenails. The oil from the seeds makes excellent candles and soap, and is in some places substituted for butter by natives. The leaves, milk of the green fruit, and the oil are all used as medicines.
23	*Bauhinia purpurea* ... Sigappu mandárai, *Tam.* Bodanta, *Tel.*	Useful for agricultural implements.
24	*Bauhinia racemosa* ... Káttu agatti, *Tam.* Adavi avisi, *Tel.*	The wood is adapted for fancy work and cabinet making, the bark for making matches and good strong ropes; its gum is used medicinally, and its seeds are roasted and eaten.

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List of trees.

No.	Scientific and vernacular names.	Uses.
25	*Bergera kœnigii* ... Kari véppilai, *Tam.* Karépáku, *Tel.*	The leaves, dried and green, are used by the natives and Europeans to flavour curries, &c. The leaves are further used in dysentery and to stop nausea.
26	*Berrya ammonilla* ... Tirikanámalai, *Tam.* Saraladévadári, *Tel.*	The wood is employed in the construction of masúla boats and for the spokes of wheels, for helves, handles, pannels, frames, carriages, &c., and for furniture.
27	*Bombax malabaricum* ... Ilavam, *Tam.* Búraga, *Tel.*	Useful for light packing cases, planks, doors and boxes where not exposed. The cotton is used for stuffing cushions and pillows.
28	*Borassus flabelliformis.* Panai, *Tam.* Tāṭi, *Tel.* (The palmyra).	The timber is chiefly used for house-building, rafters, joists, sleepers, &c.; the leaves for thatching, for making baskets and pans, for writing upon with an iron style, &c.; the fibres are employed for making twine and small rope: the seeds when young are eaten by the natives, and jaggery and toddy are extracted from the flower shoots, &c.
29	*Boswellia glabra* ... Kungiliyam, *Tam.* Guggilapu, *Tel.*	The wood is of no value; it yields a resin which is burnt as an incense in religious ceremonies.
30	*Bridelia spinosa* ... Malai véngai, *Tam.* Korama, *Tel.*	The wood is generally used for frames of wells: it is said that cattle eat the leaves, which are an antidote for worms.
31	*Buchanania latifolia* ... Sára paruppu, *Tam.* Chára pappu, *Tel.*	The wood is generally worked into furniture, house-doors and windows, presses, tables, &c. The seeds are cleaned and the kernels roasted and eaten by natives, and are much liked by Europeans who have tasted them: the seeds sell as high as a rupee per measure.
32	*Butea frondosa* ... Purasu, *Tam.* Móduga, *Tel.*	The wood is used for house purposes, and the flowers and gum are valuable, as the former gives a bright yellow dye and the latter is used in native medicines.
33	*Butea parviflora* ... Pappáli, *Tam.* Paranki, *Tel.*	The gum which this tree yields is medicinally used.
34	*Canthium parviflorum.* Sengarari maram, *Tam.* Nalla balasu, *Tel.*	The wood is well fitted for turning small objects, being close-grained and hard.
35	*Careya arborea* ... Kambi, *Tam.* Kambi, *Tel.*	It is useful for gun-stocks, &c.; its fibrous bark is used as matches for match-locks. The Ordnance Department, when searching for a wood suitable for fuses to be used instead of the English beech, were recommended to try this wood, and did so, pronouncing it in every way suitable for the purpose. It has since been sent for trial to the Bengal and Bombay Presidencies.
36	*Cassia auriculata* ... Ávárampattai, *Tam.* Tangédu, *Tel.*	The bark is used for tanning, and the stems to make native tooth-brushes.
37	*Cassia fistula*	A small tree with very hard wood, suitable for posts, &c. The tree when in flower would be beautiful were it not that it is bare of leaves at the time.
38	*Cassia roxburghii* ... Konnai, *Tam.* Swarnam, *Tel.*	This is a very beautiful tree when in flower. In its foliage it has much the appearance of the willow: the wood is not known.

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No.	Scientific and vernacular names.	Uses.
39	*Cassia florida* ... ... Símai ávárain, *Tam.* Síma tangédu, *Tel.*	The wood is used for helves, walking sticks, mallets, &c. It is a capital firewood, and the tree grows well as coppice.
40	*Casuarina equisitifolia.* Chouk, *Tam.* Serva or chouk, *Tel.*	The wood is well adapted for posts, and is used as firewood: 1,000 lbs. of this wood is equal to 1,300 lbs. of the ordinary jungle-wood when used as fuel.
41	*Cathartocarpus roxburghii.* Sigappu konnai, *Tam.* Swarna, *Tel.*	Same as No. 37.
42	*Chloroxylon swietenia* ... Purisa, *Tam.* Billu, *Tel.*	The wood is suited for all kinds of ornamental purposes, and is used for axle-trees, oil-presses, posts, naves of wheels and for fuses. The leaves are applied to wounds. This is satin wood.
43	*Cocos nucifera*, cocoanut. Tennai, *Tam.* Tenkáya, *Tel.*	The stem is used for ridge-poles, small boats, beams, posts and rafters of houses; also when polished for fancy boxes, and furniture, and several other purposes. Ropes and different articles are made of the fibrous husk of the nut; the shell is equally valuable for small cups, ladles, &c. The nut is well known as an article of food and for the oil it gives. The refuse of the nut after the oil is expressed is used as manure.
44	*Conocarpus latifolia* ... Namma, *Tam.* Yellamaddi, *Tel.*	Used especially for building purposes, axles of carts, yokes, shafts, furniture, &c.
45	*Cordia myxa* ... ... Vídi, *Tam.* Pedda botuku, *Tel.*	The timber is only fit for firewood; its fruit and seed are used in medicines.
46	*Cratæva roxburghii* ... Mávalingai, *Tam.* Tella ulli, *Tel.*	Temple cars, native dolls, &c., are made of this wood; the juice and decoction of the bark are given in intermittent and typhus fevers.
47	*Dalbergia latifolia* ... Sérákkottai, *Tam.* Jídi, *Tel.*	The wood is used for cabinet work, knees of vessels, agricultural implements, combs, &c., and for various works in the Gun Carriage Factory. This is the rosewood or blackwood of commerce.
48	*Dalbergia paniculata* ... Putsalai, *Tam.* Putsari, *Tel.*	Wood useless even for fuel.
49	*Dichrostachys cinerea* ... Vadatarai, *Tam.* Yelliturn, *Tel.*	The wood is strong and good, but too small for any purpose.
50	*Diospyros chloroxylon* ... Tumbi, *Tam.* Pedda ulinda, *Tel.*	The wood is small, but useful for many purposes; the fruit is edible. This is one of the ebonies.
51	*Diospyros cordifolia* ... Tumbi, *Tam.* Nalla urumudu, *Tel.*	The wood is used by natives for many economical purposes. This is also one of the ebonies.
52	*Diospyros ebenum* ... Tumbi, *Tam.* Tukki, *Tel.*	Used for sleepers, and by the natives in the manufacture of carriages. This is the true ebony.
53	*Diospyros melanoxylon.* Tumbi, *Tam.* Tukki, *Tel.*	Boxes are made of this wood and the fruit is eaten (ebony).

No.	Scientific and vernacular names.	Uses.
54	*Dodonæa burmanniana.*	The wood is small but hard, and used for carving and for handles of tools.
55	*Emblica officinalis* ... Nelli, *Tam.* Nelli or usirika, *Tel.*	Used for boxes; also for well rings. The bark is used for tanning and in dysentery and diarrhœa: the fruit is pickled or preserved in sugar.
56	*Eriodendron anfractuosum.* Ilavam, *Tam.* Bûraga, *Tel.*	Useful for toy making; likewise for floats; the silky wool in the seeds is used for stuffing pillows.
57	*Erythrina indica* ... Kalyána murukku, *Tam.* Badapuchettu, *Tel.*	For light boxes, scabbards, children's toys, &c. A beautiful tree when in flower.
58	*Erythrina suberosa* ... Murukku, *Tam.* Móduga, *Tel.*	For sieve frames. Valuable for its beautiful flowers.
59	*Erythrina sublobata* ... Mullu murukku, *Tam.* Mulu móduga, *Tel.*	Employed by muchis in making trunks, toys and other things that are to be varnished: valuable for its beautiful flowers.
60	*Erythroxylon areolatum.* Chembadichan, *Tam.* Dévadári, *Tel.*	Used in Mysore in lieu of sandal: its leaves are eaten as greens, and are applied to the head after bruising and mixing with gingelly oil.
61	*Eugenia jambolana* ... Periyanágai, *Tam.* Nérédu, *Tel.*	The wood makes excellent beams, and is also used for agricultural implements.
62	*Euphorbia tirucalli* ... Kalli, *Tam.* Manchi jamudu, *Tel.*	Used for the flat mud roofs of houses.
63	*Feronia elephantum* ... Vilá, *Tam.* Velaga, *Tel.*	Used in house-building: the oil obtained from its trunk is used by painters for mixing their colours; it yields a gum very much resembling gum arabic. The young leaves are used as medicine in enteric complaints of children: the pulpy part of the fruit is edible.
64	*Ficus benjamina* ... Vella pappai, *Tam.* Tella parranki, *Tel.*	Used for fuel, but is not a good one.
65	*Ficus conglomerata* ... Atti, *Tam.* Atti, *Tel.*	Used for foundations, for the masonry lining of wells, and for lining; a medicinal extract is obtained from its root.
66	*Ficus indica* ... ... Ál, *Tam.* Marri, *Tel.*	The droops of this tree are valued for tent poles, spars of small vessels, &c. When the roots are well prepared by seasoning, &c., they are excellent for knife boards.
67	*Ficus religiosa*	The wood is fit for nothing but fuel, and bad even for that purpose.
68	*Gardenia latifolia* ... Malai mángái, *Tam.* Konda mámidi, *Tel.*	A small tree; the wood fit for turning, nearly equal to box.
69	*Gardenia lucida* ... Kambi, *Tam.* Tella mánga, *Tel.*	Used for making combs: the disagreeable resin obtained from it is used by native doctors, dissolved in spirits, as an external application for cleansing foul ulcers.
70	*Girottia rottleriformis* ... Putalli maram, *Tam.* Tella poonkey, *Tel.*	The wood being light, is fit only for making models, dolls, &c.

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No.	Scientific and vernacular names.	Uses.
71	*Gmelina arborea* ... Gumudu, *Tam.* Gumudu taku, *Tel.*	Used for house posts, planks and carving images, picture frames, decking small boats, venetian blinds, sounding boards, palanquin panels, gram measures, &c.
72	*Grewia rothii* ... ... Jana, *Tel.*	The wood is a very good fuel.
73	*Guatteria cerasoides* ... Duddaga, *Tel.*	The wood is useful in general carpentry, as well as for naval purposes.
74	*Hardwickia binata* ... Ác'chá maram, *Tam.* Tuki, *Tel.*	Used for inlaying beams for European houses, troughs for water, &c., and a tough fibre is procured from its bark. A very hard heavy good wood, but natives do not like to use it in their houses as the Tamil name sounds like the inquiry 'Is it all over?'
75	*Hemigymnia macleodii.* Botku, *Tel.*	Used for picture frames. A small tree.
76	*Indiga dulcis* ... .. Korukkáppuli, *Tam.* Síma chinta, *Tel.*	This is a valuable hedge plant, and the pulp of the fruit is edible; the wood is a good fuel wood; the tree grows well as coppice.
77	*Ixora parviflora* ... Kóráng kattai, *Tam.* Gurrivi katta, *Tel.*	This, with its sweet-scented flowers, forms a very fit ornament for gardens and pleasure grounds, and the wood is used for buildings of the poor, for torches and for firewood.
78	*Lagerstrœmia micro-carpa.* Ventékku, *Tam.* ————, *Tel.*	Fit for many household purposes and for the decks of ships, &c.
79	*Lagerstrœmia parviflora.* Chinna nagi, *Tel.*	Much used for beams, rafters, &c.
80	*Lawsonia alba* ... ... Alavanam, *Tam.* Górinta, *Tel.*	A good hedge and fence plant; the leaves and bark are used medicinally, and the former in dyeing hair, skin and nails red. This is the Méndhi of the Muhammadans.
81	*Limonia alata* ... ... Káttu Elimic'chai, *Tam.* Adavi nimma, *Tel.*	The wood would be valuable if procurable in adequate size.
82	*Mangifera indica* ... Mango, *Eng.* Mángái, *Tam.* Mámidi, *Tel.*	Employed generally for packing cases, boarding and rough work. The fruit is well known, being often pickled.
83	*Melia azedarach* ... Malai vémbu, *Tam.* Konda vépa, *Tel.*	Fit for making idols and for well curbs, planks and furniture.
84	*Melia sempervirens* ...	Valuable for beams, roof, dunnage for terraces and many other purposes.
85	*Memecylon tinctorium*... Alli, *Tel.*	Much used for agricultural implements, carts, &c.
86	*Michelia champaca* ... Sembai, *Tam.* Sampangi, *Tel.*	Fit for handsome furniture; has a beautiful sweet-smelling flower.
87	*Mellingtonia hortensis*...	Cultivated for ornament and for avenue trees.
88	*Mimusops elengi* ... Paghadam, *Tam.* Pogada, *Tel.*	This is an ornamental tree with fragrant flowers, from which an oil is extracted; fit for beams and rafters.
89	*Mimusops hexandra* ... Pálai, *Tam.* Pála, *Tel.*	Used for rulers, knobs, handles of tools and other articles of turnery, also for beams, &c.

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No.	Scientific and vernacular names.	Uses.
90	*Morinda citrifolia* ... Nuná, *Tam.* Surradu, *Tel.*	Unfit for use as timber, but used for common purposes, such as wooden sandals, &c. A yellow colouring matter is procured from the roots and bark and used for dyeing handkerchiefs, turbans, &c.
91	*Morinda tinctoria* ... Suruttu, *Tam.* ————, *Tel.*	Excellent for gun-stocks, and the bark of the roots is used as a red dye.
92	*Nauclea cadamba* ... Vella kadambu, *Tam.* Kadamba, *Tel.*	Suitable for various kinds of furniture, and planking when not exposed.
93	*Nauclea cordifolia* ... Munja kadamba or vellári, *Tam.* Bandari, *Tel.*	Used for common purposes, and well suited for house carpentry and furniture.
94	*Nauclea parvifolia* ... Nírkadambu, *Tam.* Butakarami, *Tel.*	Fit for flooring planks, packing cases, yokes, posts, agricultural instruments, small beams, &c.
95	*Nyctanthes arbor-tristis.*	Valued for its fragrant flowers: the bark is used for tanning, and the flowers for dyeing silk a yellow colour.
96	*Odina wodier* ... ... Odai, *Tam.* Gumpena, *Tel.*	Used for sheaths of swords, spear handles, oil-presses and rice pounders.
97	*Perkinsonia aculeata* ... Śúna jiluga, *Tel.*	Valuable for hedges, and furnishes abundant cuttings for fuel. The fibre from its stem is valuable as a paper material.
98	*Phœnix sylvestris* ...	Useful for temporary bridges and piers; its juice as palm wine which is converted into sugar.
99	*Phyllanthus emblica* ... Nelli, *Tam.* Usirika, *Tel.*	The bark is used for tanning and the fruit is pickled or preserved in sugar. The fruit is one of the ingredients for making ink.
100	*Poinciana elata* ... Padda Náráyan, *Tam.* Sunkaishla, *Tel.*	Good for cabinet-maker's work; the leaves are used as a manure for indigo fields.
101	*Poinciana regia*, flame of the forest or gold-mohur tree. Neruppu konnai, *Tam.*	Not useful for timber, but pleasing from the beauty of its feathery foliage and brilliant red flowers.
102	*Pongamia glabra* ... Pungam, *Tam.* Kánaga, *Tel.*	Only used for firewood, and the oil from the fruit and the pod are used medicinally and for lamps. The leaves and boughs are used as manure for paddy, and the faded flowers for sugar-cane.
103	*Premna integrifolia* ... Munnai, *Tam.* Pinna nelli, *Tel.*	Fit for common purposes.
104	*Premna latifolia* ... Nelli, *Tam.* Nelli, *Tel.*	Used for various economical purposes.
105	*Premna tomentosa* ... Kolkattai tékku, *Tam.* Nagire, *Tel.*	Well fitted for ornamental purposes.
106	*Prosopis spicigera* ... Parambi, *Tam.* Jána, *Tel.*	Used for bandy wheels and other common purposes. The pods are eaten by natives.

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No.	Scientific and vernacular names.	Uses.
107	*Psidium pomiferum* ... Red guava, *Eng.* Sigappu kóvai, *Tam.* Yerra góva, *Tel.*	The root and young leaves are esteemed useful in strengthening the digestion.
108	*Psidium pyriferum* ... Kóvai, *Tam.* Gova or Jámam, *Tel.*	The fruit is edible, and the wood useful for handles of tools, mallets, pegs, &c.; gun-stocks are made from the old wood.
109	*Pterocarpus marsupium.* Véngai, *Tam.* Vegi or Yégi, *Tel.*	One of the best woods for building purposes and the best for railway sleepers; it yields the valuable gum kino.
110	*Pterocarpus santalinus.* Sigappu chandanam, *Tam.* Erra chandanam, *Tel.*	Very much used as a dye-wood and by colour manufacturers; also in turnery. Hindu images are made of this wood; posts of this are much prized by Hindus for house-building.
111	*Pterospermum suberifolium.* Taddi maram, *Tam.* Lolagu, *Tel.*	Useful for many purposes, such as poles of bullock-carts, betel trays, and gun-stocks.
112	*Punica granatum* ... Pomegranate, *Eng.* Mádalam, *Tam.* Dánimma, *Tel.*	The wood is used by the natives for roofs, and its fruit is largely used for making sherbet.
113	*Putranjiva roxburghii* ... ———, *Tam.* Kuduru juvvi, *Tel.*	Good for turnery and for implements; the nuts are threaded as necklaces and armlets.
114	*Rottlera tinctoria* ... Kapila, *Tam.* Kapili or kunkuma-puvvu, *Tel.*	The wood is of an inferior quality, but the mealy powder covering the capsules yields a valuable dye, chiefly used in dyeing silk of an orange colour; this forms an article of commerce.
115	*Santalum album* ... Sandalwood, *Eng.* Chandanam, *Tam.* Chandanam, *Tel.*	Remarkable for its agreeable fragrance: used for boxes, work boxes, walking sticks and other small articles of fine ornament. Hindus use it reduced to powder to form the sectarian marks on their forehead. A very valuable oil is distilled and used as a perfume.
116	*Schrebera swietenioides.* Mávalingai, *Tam.* Móga, *Tel.*	Much employed by weavers for the beams and for many other parts of their looms.
117	*Schlerostylis atalantoieles.* Adavi min, *Tel.*	A very hard wood.
118	*Semecarpus anacardium.* Shérâng kottai, *Tam.* Nalla jídi, *Tel.*	Adapted for fancy work and cabinet making.
119	*Seltica indica* ... ... Dévadári, *Tam.* Adavi geranta, *Tel.*	Is a small tree, but the wood is fragrant and is used as a substitute for sandalwood in Mysore. A wood tar for preserving timber employed in the construction of native boats is obtained from it.
120	*Shorea laccifera* ... Jálári, *Tam.* Jálári, *Tel.*	Is a strong and useful wood for various purposes, such as beams, joists, rafters, &c.
121	*Shorea tumbugaia* ... Shembagam, *Tam.* Thámba, *Tel.*	Chiefly used for building purposes; also for fuses. A large quantity of resin called dammar is obtained from it and substituted for pitch in marine yards; also used as incense in temples.

CHAP. I.
FLORA.
List of trees.

No.	Scientific and vernacular names.	Uses.
122	*Soymida febrifuga* ... Shem, *Tam.* Sómida, *Tel.*	Much used in buildings, and the bark is a useful tonic in intermittent fevers.
123	*Spathodea rheedii* ... Woddi, *Tel.*	A beautiful tree used for yokes and cart poles.
124	*Spondias mangifera* ... Káttu mángái, *Tam.* Adavi mámidi, *Tel.*	Wood of no use, except for firewood; yields a gum like gum arabic, and its bark and the wood itself are useful as medicines.
125	*Sterculia foetida* ... Kudiraipuduku, *Tam.* Gurrapubadam, *Tel.*	Used for common house-building purposes.
126	*Sterculia guttata* ... Ramenapu, *Tam.*	The bark is converted into a flaxy substance, of which a sort of clothing and cordage are made.
127	*Sterculia urens* ... Vella puttale, *Tam.* Thabisi, *Tel.*	Only fit for the most common purposes; the seeds are roasted and eaten by the natives, and the leaves are used in cattle diseases. A sort of gum is also obtained.
128	*Sterculia villosa* ...	Fine, strong and lasting ropes, bagging, and paper are made from the inner layers of the bark. Elephant ropes for dragging timber are made from the bark of this tree.
129	*Stereospermum chelonoides.* Pádari, *Tam.* Móka yepa, *Tel.*	A good fancy wood, and also suitable for buildings. The bark, fruit and leaves are used medicinally.
130	*Stereospermum suaveolens.* Pádari, *Tam.* Pádari, *Tel.*	Used for buggy shafts and bows, and for native buildings; the bark is employed medicinally.
131	*Strychnos nux vomica* ... Yetti, *Tam.* Mushti, *Tel.*	Used for ploughshares, cart wheels, cots, fancy work, and cabinet making; produces the poison strychnine. Iron tools are sharpened on blocks of this wood.
132	*Strychnos potatorum* ... Téttánkottai, *Tam.* Chilla ginja, *Tel.*	Used for firewood, bandy wheels, ploughshares, and several economic purposes; the seeds are used by natives for purifying muddy water.
133	*Tamarindus indica* ... Tamarind, *Eng.* Puli, *Tam.* Chinta, *Tel.*	Used for sugarcane and oil mills, naves of wheels, mallets, rice-pounders, and for furniture and building purposes; the fruit is well known.
134	*Tectona grandis* ... Tékku, *Tam.* Téku, *Tel.*	Used for ship-building, house-building, furniture, &c.
135	*Terminalia alata* ... Marudam, *Tam.* Maddi, *Tel.*	Used for house-building and canoes.
136	*Terminalia arjuna* ... Vella marudam, *Tam.* Tella maddi, *Tel.*	Used for tie-beams, rafters, &c., and the bark for application to wounds.
137	*Terminalia belerica* ... Tándri, *Tam.* Tándri, *Tel.*	The fruit is used medicinally.
138	*Terminalia catappa* ... Náttu bádám, *Tam.* Bádam, *Tel.*	Chiefly used as posts and for firewood; the kernel is eaten and is palatable.

CHAP. I.
FLORA.
List of trees.

No.	Scientific and vernacular names.	Uses.
139	*Terminalia chebula* ... Kadukkái, *Tam.* Karaka, *Tel.*	The wood is used for beams and rafters of houses and the seeds for tanning and making ink. The fruit is well known for its dyeing properties, the myrobalans of commerce.
140	*Terminalia coriacea* ... Arremuti, *Tam.* Karra maradu, *Tel.*	Used for beams and pillars for houses; also for ships and boats.
141	*Terminalia glabra* .. Karuppu marudam, *Tam.* Nalla maddi, *Tel.*	Readily procurable of large size for house-building, and used for flooring cattle sheds, for rice-pounders, &c.; the bark is used for tanning.
142	*Terminalia tomentosa* ... Marudam, *Tam.* Nalla maddi, *Tel.*	Make good beams and rafters.
143	*Thespesia populnea* ... Púvarasan, *Tam.* Gangarávi, *Tel.*	Wood used for chairs, gun-stocks and furniture; often grown in avenues.
144	*Trophis aspera* ... Bári venka, *Tel.*	Used chiefly for firewood; the leaves are said to be used to polish horns and ivory, and the bark, leaves and sap medicinally.
145	*Ulmus integrifolia* ... Ayi, *Tam.* Pedda nowli, *Tel.*	Used for carts, door frames, &c.; the wood yields a peculiar odour to boiling water, which is mixed with common arrack and improves its flavour; the forks of the branches are used by the natives to protect their straw from cattle.
146	*Vachella farvesiana* ... Veda valli, *Tam.* Kastúri tumma, *Tel.*	Makes excellent ship's knees and tent pegs, and exudes much gum.
147	*Vateria indica* ... ... Vellai kungiliyam, *Tam.* Dupadu chettu, *Tel.*	An excellent and valuable building timber; produces the resin called copal.
148	*Vatica laccifera* ... Jálári, *Tel.*	Very valuable for building purposes.
149	*Vitex altissima* ... Káttu mailam, *Tam.*	The tree is of great beauty when in flower and yields a very valuable timber.
150	*Vitex arborea* ... Nemali adugu, *Tel.*	Useful for various ordinary purposes.
151	*Vitex lencoxylon* ... Neváládi, *Tel.*	Useful for furniture and cart wheels.
152	*Vitex negundo* ... Vella noc'chi, *Tam.* Vávili, *Tel.*	The leaves and roots are used medicinally.
153	*Vitex trifolia* ... ... Nír noc'chi, *Tam.* Vávili, *Tel.*	Used for bridges, water casks, cart and wagon wheels, bullock carts, water tubs, and house buildings.
154	*Wrightia antidysenterica.* Veppálai, *Tam.* Pála or rippála, *Tel.*	The wood is of little use, but the bark is valuable for its medicinal property.
155	*Wrightia tinctoria* ... Chinna Véngai, *Tam.* Jitti véga, *Tel.*	Valuable for turning, and the leaves yield an inferior kind of indigo.
156	*Wrightia tomentosa* ... Koila mukri, *Tel.*	The juice is a permanent yellow dye, and the bark is given internally for scorpion stings.

CHAP. I. FLORA. List of trees.

No.	Scientific and vernacular names.	Uses.
157	*Zizyphus glabrata* ... Kurkatta, *Tam.* Kakupala, *Tel.*	Used for ploughs, and the bark yields a sort of gum.
158	*Zizyphus jujuba* ... Ilandai, *Tam.* Régu, *Tel.*	The fruit is sweet and palatable; the wood is fit for planks or sleepers, implements of husbandry, &c.
159	*Zizyphus xylopyrus* ... Gotte, *Tel.*	Used for torches, buildings and implements. The fruit is employed by shoe-makers to blacken leather and to make blacking.

FAUNA. Mammals.

There is nothing of special interest in connection with the fauna of North Arcot except that the bison (*Gavaeus gaurus*) is found on the Javádi hills. The other *feræ naturæ* are much the same as those met with in the eastern districts generally. The tiger (*Felis tigris*) is only occasionally found, but the panther (*Felis pardus*) is common throughout the rocky hills of the district. The ordinary Indian bear (*Ursus labiatus*), the hyæna (*Hyæna striata*), the sambar (*Rusa aristotelis*), the spotted deer (*Axis maculatus*), the jungle sheep or barking deer (*Cervulus aureus*), the antelope (*Antelope bezoartica*), the hare (*Lepus nigricollis*), the wild pig (*Sus indicus*), the wild dog (*Ceron rutilans*), the jackal (*Canis aureus*) and the common Madras monkey (*Macacus radiatus*) are found to a greater or less extent in different parts of the district. The elephant, it is said, was met with on the Javádis up to comparatively recent times, but there are none there now.

Domestic animals.

The cattle of the district are not generally remarkable for any excellence. In Kálahasti a good many of the Nellore kind may be seen, but the ryots do not breed from them. Above the gháts very good bullocks and cows are found, the former of the Mysore breed, chiefly in Kangundi, and the latter in Punganúr, after which place they are called. Punganúr cows are celebrated for the amount of milk that they produce, but few pure specimens of the breed can now be procured. The sheep of the plains are the common long-legged red kind, but on the plateau, as well as in the west of Pólúr, a small black breed is met with, called Kurumba sheep, carrying a good deal of wool, which is extensively used for making cumblies. In 1852 an attempt was made to improve the breed by the importation of half-bred Merino sheep from Mysore, but they were found liable to disease, and the experiment failed. A wretched lot of tats (ponies) is bred in Palmanér; but none of the other domesticated animals deserve notice.

CHAP. I. FAUNA. Birds.

No list of the birds of the district is available, but here again there is nothing peculiar to the district. Pea-fowl and jungle-fowl are fairly common in the forests, and the partridge is met with in almost every bit of scrub. Snipe, teal and duck abound in the cold weather, and quail and pigeon are common.

Fishes.

The following is a list of the vernacular names of the principal fishes found in the rivers and tanks:—

Varál, *Tam.* .. Korramínu or púla, *Tel.* ..	A very large fish about 3 feet long and very much prized.
Válai, *Tam.* .. Válaga or maluga, *Tel.*	A fish about 3 feet long, but thinner than the preceding. It is not much eaten, as it is said to cause rheumatism.
Arinjal-kandai, *Tam.* ..	A very excellent fish, about a foot long.
Ulavai, *Tam.* .. Isuka-dondu, *Tel.* ..	A very good fish, 8 inches long.
Kuravai, *Tam.* .. Koradu, *Tel.* ..	Resembles the varál, but is only a quarter of its size.
Kulla-kandai, *Tam.* .. Vulusu, *Tel.* ..	A small bitter-tasted fish, generally eaten cured.
Asarai, *Tam.* .. Pú, *Tel.* ..	A very small fish like whitebait, caught in streams during freshes.
Keliru, *Tam.* .. Jella, *Tel.* ..	A very good small flat fish.
Irál, *Tam.* .. Royya, *Tel.* ..	Prawns.
Velangu, *Tam.* .. Pámu châpa, *Tel.* ..	Eels.
Tél, *Tam.* .. Télu, *Tel.* ..	A short flat-headed eel having something like a scorpion's nippers, whence the name.
Árál, *Tam.* .. Bombadai, *Tel.* ..	A short mud eel, 8 inches lorg.

CHAPTER II.

POLITICAL HISTORY.

CHAP. II.
EARLY HISTORY.
Introduction.

THE district of North Arcot forms part of the country originally known by the name of Drávida. When, and by whom, it was first peopled is unknown. Its earliest inhabitants appear to have lived a wild and savage life among thick forests, and were described by the more civilized natives of the north as "foresters and mountaineers, goblins and demons." They were sometimes called Védars or huntsmen, uncivilized men who wandered about naked, without religion, kings, or marriage customs. Remnants of the aboriginal races are by some thought to remain in the Yánádis and Irulas, who still live in the forest and barter jungle produce.

But the fertile plains of Drávida before long began to attract fresh immigrants, who settled along the sea coast and by the borders of the larger rivers. Professor Wilson is of opinion that the civilization of the south may be said to have commenced as

CHAP. II. EARLY HISTORY. — Introduction.

early as the tenth century before the Christian era. Pliny writes of flourishing towns upon the Coromandel coast, and Strabo, as well as Arrian, in describing the southern nations, does not contrast them unfavourably with those of the north.

There are no authentic historical records of the early races of Drávida. Inscriptions are found from which are gathered the names of various kings, with the dates of their reigns, but their statements regarding the extent of territory under each are unreliable and delusive. The early poems afford but slight assistance to historians, for in them fact is so blended with fiction that it is impossible, with any approach to certainty, to found upon them historical inferences.

The Kurumbas.

The earliest important settlers in Drávida appear to have been the Kurumbas, a fierce race so called on account of their cruelty. Attracted by the extensive seaboard of the country, which afforded an opportunity of engaging in commerce with other nations, they descended from Carnátaca and overpowered the Védars. They are said at first to have had no ruler, but dissensions among themselves led them to choose a chief named Komándu Kurumba Prabhu, the first king of a dynasty known as that of the Pallavas. He divided the country into 24 divisions or kóttams, in each of which he built a fort, and his territory extended from about Pulicat in the north to about Cuddalore in the south, and inland probably as far as the Eastern Ghauts. One of the chief of their forts was that of Padavéd in the Pólúr taluk. Others were probably at Mahéndravádi, Ambúrpet, Náráyanavanam and Vallimalai, where traces of old fortifications are met with.

Little is known of these Pallava kings. Their principal stronghold was at Puralúr, near the Red Hills, and Conjeeveram became their most important town. Traditions state that a very considerable sea-trade was carried on by them with foreign countries, and this is confirmed by the discovery along the sea coast of Pallava coins, together with those of ancient Rome and China. A Jain missionary is also stated to have visited the people and converted them to his faith. Conjeeveram then became a stronghold of that religion, and many Jain monks found shelter in the town. A number of Jains still live in the neighbouring taluks of Arcot, Wandiwash and Pólúr, as well as in South Arcot.

In the seventh century the power of the Pallava rájás seems to have been at its height, but shortly after the Konga and Chóla kings succeeded in gaining several successes over them. The final downfall of the Kurumbas was effected by the Chólas about the

eighth or ninth century. Ádondai, the illegitimate son of Kulóttunga Rájá of Tanjore, also known as Tondaimán Chakravarti, attacked the Pallava king in force, and a fierce battle was fought at Puralúr. In this the Kurumbas were successful, and Ádondai was forced to retreat to Sholinghur. Encouraged there by a dream, he renewed the contest and defeated the enemy with great slaughter. The Pallava king was taken prisoner, and the brazen gates of the Puralúr fort were carried to the temple of Tanjore. After this success the petty Kurumba chiefs were easily subdued, and their race almost extirpated. They are now found upon the Mysore plateau, where they are called Kurubas, and employ themselves in grazing cattle and weaving coarse woollen blankets.[1] Others fled westwards, and are found in a half-civilized state upon the slopes of the Nílgiris. Many facts would also point to the conclusion that the Yánádis and Irulas are remnants of the tribe. The name of the conquered territory was changed to Tondaimandalam (*Ádonduimandalam ?*), and it was peopled by large numbers of Vellálas and other castes, who were brought over from the south and west of the peninsula.

CHAP. II. EARLY HISTORY.

The Kurumbas.

The Chólas.

Conjeeveram now became the capital of the Chóla kingdom, the limits of which appear at one time to have extended as far as the Godávari. The Chóla power, however, again declined, and the boundary of the kingdom was thrust back within the limits of the Tamil country, where, carrying on a desultory contest with the kings of Telingána and Vijayanagar, the Chóla rájás were frequently reduced to the position of tributaries. By the close of the seventeenth century the dynasty came to a close, and its place was taken by the brother of the celebrated Mahrátta leader Siváji, who founded the present family of Tanjore.

The Yádavas.

After the Chóla kings had been forced southward, the eastern part of Telingána seems to have been in the possession of a dynasty called Yádava, but regarding the kings of this line we possess no authentic records, and only gather that one of their capitals was at Náráyanavanam, in the Kárvetnagar zemindári, while Tirupati and Chendragiri were important places in their territories. It seems not improbable that they may have belonged to the Kurumba race, as the name signifies shepherd, and the Kurumbas of the plateau are all devoted to that occupation.

THE HINDU PERIOD.

About the eleventh century comes into notice the Ballál family, a dynasty which is vaguely said to have ruled over the Tamil country, Carnátaca, Malabar and part of Telingána. The

[1] For further information regarding the Kurumbas see the notice of the tribe in chapter iv.

CHAP. II. THE HINDU PERIOD.

Ándhra kings attained to some importance at about the same period, but their territories did not extend so far south as the modern Carnatic. Their capital was at Warangal, 80 miles north-east of Hyderabad, and they, as well as the Ballál rájás, were overthrown in the fourteenth century by the Muhammadans.

From this period the history of Southern India becomes clearer. The earliest of the Muhammadan invasions occurred in the year 1293, when Ramdéo, king of the Mahráttas, was attacked by Alá-ud-dín, of the house of Khilji, and forced to pay an enormous tribute. Encouraged by their success, the Muhammadans made a second invasion in 1303 into Telingána, but this time were unsuccessful. For three years they were content to desist from further enterprises in the south, but after that period Ramdéo, having failed to pay his stipulated tribute, was once again reduced to submission by a Muhammadan army under the general Málik Káfúr, who continued his march from Déogiri, Ramdéo's capital, to Warangal, the capital of Telingána, which he took and exacted tribute from its rájá. From Warangal the victorious general marched still further south, defeated a Ballál army at Dwárasamudram, in Mysore, the capital of the kingdom, and reduced the whole of the country along the Eastern Coast as far as Ráméswaram. Having achieved this success, Málik Káfúr retired northwards.

In the course of ten years, however, the impression caused by this invasion began to wear away, and the southern kingdoms ventured to withhold payment of the tribute due to their distant lords at Delhi. In 1322 Ghyas-ud-dín Tughlak was, therefore, constrained to send an army to coerce his tributaries in the Deccan, and the Rájá of Warangal, who had been the leader among the insurgents, was carried away captive to the north.

The Vijayanagar dynasty.

The kings of Vijayanagar, already referred to, are among the most important of the various dynasties which have reigned in Southern India, and the tradition of the wealth, power and splendour of their reigns is still proudly remembered by the inhabitants of its towns and villages. The kingdom appears to have first risen into notice after the subversion of the Ballál monarchy, when two Telingána princes,[2] named Bukkaráya and Harihara, founded it by a divine inspiration with the assistance of the learned Mádhva Vidyáranya, who became their prime minister.

The capital, from which the dynasty took its name, was situated upon the banks of the Tungabhadra, and from thence

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[2] Said by some to have been Kurumbas.

CHAP. II. THE HINDU PERIOD.

The Vijayanagar dynasty.

successive Vijayanagar rájás succeeded, during the fourteenth, fifteenth, and part of the sixteenth centuries, in carrying on a successful contest with their neighbours. During the reign of Muhammad Tughlak, in 1344, they were able, with the assistance of the rájá of Telingána and the Báhmani king Hassan Gangu, to expel the Musalman garrisons from their territories; but constant attempts were made by the Muhammadans to recover their position, and the country was for some two centuries the scene of frequent wars. It is unnecessary to enter into a full account of the various kings of the Vijayanagar line. Their territories appear, until the fifteenth century, to have been confined to the more immediate neighbourhood of their capital, and it was not until the reign of the fourteenth rájá, Narsing Ráya, that they extended so far as the Carnatic. Narsing Ráya greatly extended the territories bequeathed to him by his predecessors, and is said to have built, or at least improved, the forts of Vellore and Chendragiri, "the former for his occasional residence, and the latter as a place for the safe deposit of treasure." His son Krishna Déva Ráya still further extended the territories which his father had acquired, and reduced the whole of the Tamil country to subjection.

The line of the Báhmani kings, who were the allies of Vijayanagar in its struggle with the Muhammadans, was founded by some Mughal refugees from Guzerát, who were forced to flee to the Deccan from the cruelty and oppression of the Emperor Muhammad Tughlak. The refugees seized upon the town of Dowlatabád, where many, who were exasperated by the excesses of the emperor, joined them, and proclaimed an Afghan, Ismaíl Khán, as their chief. Ismaíl Khán soon resigned his leadership to Hassan Gangu, the ally of the Vijayanagar Rájá.

A continuance of this alliance between states differing from one another in race and religion was impossible, and no sooner had the common enemy been disposed of than the Báhmani kings began a protracted struggle with the Hindu rájás of Telingána and Vijayanagar. During these contests the former dynasty was completely reduced, and the only two important powers in the south of India were those of Báhmani and Vijayanagar. Of these the latter had by the sixteenth century become paramount over almost the whole of the country south of the Tungabhadra. "They exercised," says Marshman, "authority more or less complete "over all the Hindu chiefs of the south. The revenues of "Warangal, which were said to be enriched by the commerce of "sixty seaports on both coasts, enabled the king to keep up a force "with which no other single state was able to cope."

This condition of prosperity seems to have arisen in a great measure from the dissensions which broke out in the Báhmani

CHAP. II. THE HINDU PERIOD.

The Vijayanagar dynasty.

kingdom. After the death of Hassan Gangu it had gradually split up into five different governments, mutually jealous of, and frequently at war with, one another. In the middle of the sixteenth century the five rival Báhmani chiefs, or sultáns as they were called, perceiving with alarm the dangerous increase of power on the part of their neighbour at Vijayanagar, resolved to unite in humbling him. The armies, therefore, joined for this purpose, and on January 23rd, 1565, was fought one of the most eventful battles in the history of Southern India—that of Talikóta. The Vijayanagar army was routed, the reigning monarch, Rám Ráya, was slain, and the kingdom in consequence fell to pieces.

The Chendragiri Rájás.

Mutual jealousies among the victors prevented them from attempting to seize upon all the territory of the overthrown monarchy, and the result of the battle was that the country fell into the hands of various members of the late royal family, and some of the principal officers of the government, who continue to the present day under the titles of zemindars and poligars. Among others, the nearest relative of the deceased rájá, a brother, contrived to appropriate a fragment of the kingdom. After a short residence at Penukonda, in the Anantapur district, he removed himself and his court to Chendragiri. Here he heard that the English, who in 1625 had moved their factory from Masulipatam to Armegaum, were dissatisfied with the results of their trade in that place. An invitation was, therefore, sent by the Kálahasti poligar (a tributary of the rájá) to Mr. Day, the superintendent of the Company's factory, to settle within his dominions, which extended to the coast. The offer was accepted, and Mr. Day visited the rájá in his palace of Chendragiri, where, in 1640, a grant was made of a small strip of land on the coast, the first ever possessed by the British in India. To protect themselves against the danger of attack from the restless and turbulent princes of the neighbourhood, a fort was built and named Fort St. George, after the traditional champion of England.

Grant of Madras to the East India Company.

Bîjapúr and Gólgonda.

The results of the battle of Talikóta were eminently disastrous to the happiness and welfare of South India. The sun of the prosperity of Vijayanagar set with the death of its rájá, and the wealth and grandeur of its capital soon sank into insignificance. The accounts which we possess of those who visited the country at the close of the fifteenth and the opening of the sixteenth centuries show that evidences of the wealth and happiness of the provinces were everywhere apparent. Several large and prosperous towns exported their manufactures to the most distant parts of the globe; cultivation was widely extended, and trade at numerous seaports was extensively carried on. But as soon as the head,

Bîjapúr and Gólgonda.

which had controlled the turbulent petty chieftains of the country, was removed, the land was given over a prey to pillage and rapine. Constant warfare deprived the cultivators of the power to till the soil in peace, or to reap the produce which they with difficulty succeeded in raising, and it was not until after very many years, when a sufficiently powerful controlling authority once more kept the zemindars and poligars within bounds, that the country began to make any steady progress towards wealth and prosperity.

For seventy years after Talikóta the provinces continued a victim to these petty struggles between the numerous princes who had risen on the ruins of the Vijayanagar kingdom. At the end of that period we find the king of Bîjapúr casting his eyes upon the tempting bait which these feeble and disunited principalities offered to him. His kingdom formed one of the five into which the Báhmani monarchy had been resolved. Early in the sixteenth century he had asserted his independence, and from that time had been engaged in frequent contests with the Mughals. Ahmednagar and Gólgonda were two more of the states which had arisen after the decomposition of the Báhmani kingdom, and they, like their neighbour at Bîjapúr, were constantly at war with the Mughals, besides being jealous of one another.

These contests and mutual jealousies so completely engrossed their attention that they had no leisure to turn their thoughts to the provinces of the south, which seemed to invite the interference of any ruler powerful enough to seize and hold their fertile territories. But at the close of the campaign of Sháh Jehán, in 1636, which closed with the treaty between that emperor and the Bîjapúr sultán, the latter was left with the power and leisure to prosecute his schemes of aggrandizement in the south. The power of Ahmednagar had been extinguished in that campaign, while the rulers of Gólgonda and Bîjapúr continued in a state of comparative independence, and for the next twenty years were able to carry war into the Carnatic. They did so, but instead of uniting to reduce the country, each separately proceeded against those poligars who happened to be nearest to his own territories. The natural result of their operations was that the petty principalities fell one by one under their sway. Vellore passed into the power of the Bîjapúr state, while Chendragiri was acquired by Gólgonda.

These successes were not long in provoking the jealousy of the emperor, who took an early opportunity of checking the progress of his nominal vassals. In 1656 Adil Sháh, Sultán of Bîjapúr, died, and his son imprudently neglected to pay the customary mark of homage on succeeding to the throne. Sháh Jehán therefore proclaimed him to be an illegitimate son of the deceased

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Bîjapúr and Gólgonda.

sultán, and a Mughal army, under the emperor's own son Aurangzíb, suddenly presented its appearance within the territories of Bîjapúr. As a large portion of the army of that state happened to be absent in the Carnatic, the aspect of affairs looked gloomy, and it seemed not unlikely that Bîjapúr would be shorn of its power and influence. But at this juncture news arrived that the emperor was dying, and Aurangzíb was unwillingly obliged to raise the siege in order to secure his own succession to the throne. Thus Bîjapúr was allowed a respite of thirty years in which to consolidate and extend its power in the newly-conquered territory.

The Mahráttas.

The history of a Mahrátta family, which exercised a very powerful influence over the destinies of Southern India, has now to be noticed. This was the family of Siváji. One Mallóji Bhonslé, a captain of horse, having accumulated great wealth by the Mahrátta expedient of plunder, purchased, soon after the beginning of the seventeenth century, certain jágírs at Poona and other places from the Sultán of Ahmednagar. These he bequeathed on his death to his son Sháhji, who, after repeatedly changing sides in the various conflicts between the Mughals and their tributaries in the Northern Deccan, found it convenient, about the time of the treaty of 1636, to offer his services to the Sultán of Bîjapúr, whose star then appeared to be in the ascendant. They were accepted, and Sháhji was entrusted with the command of one of the several expeditions into the Carnatic. So successfully did he fulfil his trust that he was rewarded with the grant of valuable jágírs in the neighbourhood of Bangalore, and his jágír at Poona, being of inferior value compared with these new acquisitions, was handed over to his son, the celebrated Siváji. But no sooner had the youth grasped the power which passed to him with the Poona jágír, than he began to indulge in such wild excesses and such audacious schemes of plunder, that the father Sháhji was seized by his patron as a hostage and pledge of the good conduct of the son. For four years Sháhji remained a captive at Bîjapúr, until it was found that, without his vigorous supervision, the Carnatic provinces had fallen into the utmost disorder. He was, therefore, restored to his command, of course with augmented importance, and before his death, in 1664, had acquired in addition to his jágírs around Bangalore, several others in the more southerly parts of the country.

After his father's release Siváji, who had been somewhat sobered during Sháhji's captivity, resumed his career of indiscriminate plunder, and contrived to extend his authority over a large portion of the Northern Deccan. So rapid was the advance of his power that, in 1674, he was able to assert his independence and assumed the titles of royalty.

The Mahrattas.

Ten years before this date his father Sháhji had died, and his southern jágírs passed into the possession of a half-brother of Siváji named Venkáji, who held them as a vassal of the Bîjapúr state. Siváji now conceived the bold design of making an expedition into the south and wresting from his half-brother these valuable estates. With this view he entered into an arrangement with the Sultán of Gólgonda, by which the latter agreed to guard his northern possessions while he marched into the Carnatic to conquer, for Gólgonda, the provinces tributary to Bîjapúr. This was, of course, a mere pretext to secure the aid of the Gólgonda state. The real object of Siváji, as it soon appeared, was to acquire the southern provinces for himself.

Having thus protected his own kingdom he, in 1676, set out against his brother, and entered the Carnatic by the Kallúr pass in this district. The character of the Mahrátta horse, half soldiers and half robbers, is so well known that it is hardly necessary to describe the effect of this sudden invasion of the country by their plundering hordes. For miles around the line of their march were seen the smoke of burning villages and crops ruthlessly destroyed. Where, by good fortune, there had been some warning of their approach, villagers hastily forsook their homes, carrying with them what they could lay hands on, but the small detached bodies of the invaders moved with such rapidity that there was rarely an opportunity for flight, and before any plan of combined pursuit and reprisal could be formed the plunderers were passed far beyond reach. With these hardy and irrepressible troops Siváji proceeded to reduce his brother's forts. Vellore, after a short and gallant resistance, was driven to a surrender, and its capitulation was followed by that of Arni and other strongholds in this and neighbouring districts. Even Gingee the impregnable was gained, but by treachery, and this, the chief stronghold of his brother, having been acquired, Siváji may be said to have possessed himself of the whole of his father's jágírs. But, just as his success appeared complete, news from the north recalled him to the aid of his ally at Gólgonda, and he was forced to leave his newly-acquired territories under the charge of another half-brother,[3] Santáji. The latter, however, left in possession with a reduced army, was gradually overpowered by Venkáji, and Siváji eventually acquiesced in his retaining the provinces on a promise of receiving one-half of the revenues.

Meanwhile the Emperor Aurangzíb was not inattentive to what was occurring in the south. In 1686 he resolved to put a

[3] Wilks is of opinion that Santáji was no relative of Siváji, but merely the commander of his forces.

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The Mahráttas.

stop to the state of anarchy reigning there, and set out with an enormous army, with which he annihilated the monarchy of Bîjapúr and rapidly brought the whole country into allegiance. But the submission of his tributaries was rather nominal than real, and he cannot be said to have had anything more than a military occupation of the country. The result of his interference with the kingdoms which had preserved a certain amount of order in the Deccan was to introduce confusion throughout the provinces. Repeated revolts involved him in a succession of battles and sieges. No sooner had one rebellion been suppressed than fresh conspiracies arose in other directions, and thus for years the unfortunate Carnatic, which had barely recovered from the effects of the inroad of Siváji's horsemen, was once more overrun by the armies of the Mughals on the one hand, and pillaged by the Mahrátta cavalry on the other. It is difficult to imagine a condition more pitiable than that of the country at this period of its history.

Before this expedition from Delhi, Siváji had died, and his son Sambháji, who succeeded him, was captured and put to death by the emperor. His infant son Sáhu was proclaimed head of the Mahráttas, while an uncle, Rájárám, was appointed regent. The Mughals succeeded in capturing the youth, and Rájárám at once usurped the throne, establishing himself at Gingee. Here for eight years he withstood the not very energetic attempts of the Mughal general Zulfikár Khán to reduce his fortress. His captains were let loose upon the Carnatic to demand contributions. Those villages which had the temerity to refuse compliance with their demands were plundered, while those who acquiesced were left with barely sufficient to ward off actual starvation.

After a siege of eight years Gingee was taken, but Rájárám escaped and fled to Vellore, whence he removed to Satára, and surrounded himself with another large army.

After garrisoning Gingee, which was at first intended to be their head-quarters in the south, the Mughals followed the Mahrátta sovereign to the north, but though forts were taken, they were afterwards lost, and eventually the emperor was driven by his increasing difficulties to abandon his designs and to return to his capital, which twenty years previously he had left with such brilliant expectations. Those expectations had been disappointed, and he now found himself with an exhausted treasury, a demoralised army, and an authority utterly disregarded by the tributaries whom he had intended to reduce. Under the weight of these disappointments the emperor succumbed, and died at Delhi in 1707.

His death was followed by a contest for the succession among his sons. While the result of this remained uncertain, Zulfikár Khán, the Mughal general, had the sagacity to remain neutral, but as soon as the success of the eldest son Muazzam seemed assured, he hastened to render his allegiance, and in return for his fidelity received the title of Viceroy or Subahdár of the Deccan. Without taking up this appointment, Zulfikár Khán nominated a Patán, named Dáúd Khán, to act as his deputy, and the affairs of the Carnatic were for five years successfully administered by this officer, who established his head-quarters at Arcot, since Gingee had been found to be extremely unhealthy. After five years, in 1713, the viceroy was murdered on the accession of the emperor Farukhsiyyar, his deputy was removed from his subordinate government of Arcot, and one Chin Kilick Khán was honoured with the vacant appointment of subahdár. He had already distinguished himself by his general acuteness and sagacity, and had received from Aurangzib the titles of Asaf Jáh and Nizám-ul-Mulk, or Regulator of the State, by the latter of which titles he and his descendants have generally been known to the British.

Subahdár of the Deccan.

Within a year of his nomination the Nizam was removed from his appointment, and one Hussain Ali, who had, with his brother, acquired great power in the emperor's court, was sent to supplant him. He had succeeded in incurring the jealousy of the emperor, who secretly endeavoured to procure his ruin. With this view Dáúd Khán, now Governor of Guzerát, was persuaded to attack Hussain Ali, but the attempt was unsuccessful, and the late Governor of the Carnatic was himself slain. The Mahráttas were next induced to harass the new viceroy, and so well did they succeed, that the unfortunate Hussain Ali, entangled on all sides, was obliged to purchase their good-will by acknowledging Sáhu to be an independent sovereign, and assigning to the Mahráttas the right to collect "the fourth and the tenth of the revenues of the six soubahs of the Deccan and of the tributary states of Tanjore, Mysore and Trichinopoly."

The 'chout.'

This acknowledgment of a Mahrátta right to demand a portion of the revenues of these districts, known by the term 'chout,' was fruitful of misfortune and trouble to the inhabitants of the Carnatic provinces, for the Mahrátta leaders found it remunerative to make inroads into the country, for the purpose of levying what they called their dues, whenever they happened to have no more important expedition on hand.

Having thus bought off the Mahráttas, Hussain Ali marched back to Delhi, seized upon the person of the emperor and procured his assassination. After putting upon the throne two powerless

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puppets who died within a few months of one another, he, with his brother, proclaimed as emperor a grandson of Aurangzíb under the title of Muhammad Sháh.

The 'chout.'

Perceiving the disunited state of the kingdom the Nizam, Asaf Jáh, secretly resolved on seizing the opportunity for establishing an independent kingdom in the Deccan. His actions betrayed his scheme, and Hussain Ali marched with a large army to prevent the accomplishment of his design, but was assassinated before an encounter took place. The new emperor, who was heartily jealous of the restraint laid upon him by the two brothers, now attacked the survivor and succeeded in defeating his forces. Asaf Jáh was invited to accept the office of vizier, and obeyed the summons, but being speedily disgusted with the degeneracy of the emperor's court, he threw up the appointment and started off to Hyderabad. There he set himself to administer the affairs of the soubah, and paid but small regard to the allegiance nominally due to his suzerain at Delhi. From this time, 1724, the Nizam may be considered as a virtually independent sovereign.

Nabobs of the Carnatic—Sádat-ullá.

Subordinate to the Nizam was the province of the Carnatic, under a deputy, or nabob, having the seat of his government at Arcot. Dáúd Khán had been first entrusted with its governance, and when he, in 1710, was withdrawn to the province of Guzerát, one Sádat-ullá was left to officiate. This he did until his death in 1732, when his nephew Dost Ali assumed the administration of the province, but without applying for the sanction of his superior, the Nizam, who had then been established at Hyderabad for eight years.

Dost Ali.

The Nizam, however, happened at the time to be too busy with more important affairs to take notice of this omission, and Dost Ali continued for a time in peaceful possession of his government. His administration, as well as that of his predecessor, is not remarkable for any brilliant conquests, but is happily distinguished for its moderation and beneficence. The thirty years during which these two rulers administered the affairs of the province were fruitful in benefits to their subjects, and not a few of the important works of irrigation which are now found spread over the country are ascribed to their energy and large-mindedness. For the first time for years did the people enjoy a temporary respite from the hardships of war and rapine.

But even Dost Ali could not at last resist the fascinating idea of conquest, and, in 1736, we find him carrying war into the division of Trichinopoly, the strong fortress of which he took and added the territories of its chief to his own. In 1740, however, he was called upon to defend himself against the aggressions of others. The invasion was from the Mahráttas, who sent a large

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army, represented as numbering 10,000 men, under a Mahrátta general, Rághóji Bhonslé, who had acquired great power in Berár. The tribute granted to them by Hussain Ali had for years remained uncollected, and payment had not been insisted on from fear of the Nizam. Now, however, the latter encouraged them to invade his dependency, and the Mahráttas were only too ready to listen to his suggestions. There is also reason to suppose that the nabob's eldest son and the diwán Mír Asud had invited them to attack Chanda Sahib of Trichinopoly, who had aroused their jealousy. They kept the design secret from the nabob, expecting that he would take refuge in Vellore or Arcot, and allow the invaders to pass on to Trichinopoly.

Dost Ali had, however, more spirit than they anticipated. He had hardly heard of the Mahrátta advance than he received intelligence that Rághóji had actually gained the head of the ghauts and was preparing to descend by the Kallúr Pass. Hastily sending off word to his son Safdar Ali to hurry to his assistance, he advanced with some 4,000 cavalry and 6,000 foot to oppose the enemy, and fixed upon Dámalcheruvu, in the taluk of Chendragiri, as a spot where he could, with success, make a stand until reinforcement should arrive. At this place high hills close in the valley which leads up to the pass of Kallúr, and across it an entrenchment was constructed, behind which the nabob's artillery was posted. Even now a long line of earthwork is to be traced, crossing the valley and ascending the hills on either side. The villagers assert that it was constructed long ago to mark the boundary between the territories of the Chóla kings and their northern neighbours. Probably Dost Ali did find an earthwork thus ready at hand. The invasion was so unexpected that he would hardly have had time to raise so extensive a line of defence. In the rear of this entrenchment the nabob drew up his forces and awaited the attack. The Mahrátta leader, however, had recourse to intrigue, and succeeded in corrupting one of the Hindu officers in the nabob's army—some say the Pulicherla poligar—who allowed the enemy to pass to the rear of the defences in the darkness of night (perhaps by the Mangalpenta valley) and to attack the nabob in the rear; under these circumstances Dost Ali's artillery was useless, and though his troops maintained a stubborn resistance for many hours, the death of their ruler and his son Hussain Ali produced the usual panic. They broke and fled, leaving vast numbers upon the field of battle. The diwán was among the prisoners, and few of the nabob's officers survived the battle. In the district records appears a reference to a lofty mound, said to have been in existence in 1804, and to have been called by the villagers the 'Bhúmigutta.' It is described as

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'the memorial of a great battle,' probably that of Dámalcheruvu. It is now impossible to identify the spot or to obtain any information regarding it.

Safdar Ali.

Safdar Ali had meanwhile hurried up from the south and had reached Arcot, when information of the disastrous issue of the battle reached him. Dismayed at the perfidy of the Mahráttas in converting a mock invasion into a real one, he threw himself into the fortress of Vellore, which was the strongest in the Carnatic, and sent word to the captive diwán to sue for terms. These were at first refused, as the Mahráttas had not yet exhausted the resources of the country, but when no further prospect of plunder remained, Rághóji consented to quit the Carnatic on payment of one year's revenue, a sum equivalent to a crore of rupees. Hard as the terms were, Safdar Ali had no alternative but to comply, and on these conditions a treaty was ratified. The Mahrátta army retired, and Dost Ali's son assumed the title of nabob.

Up to this time the court had been held at Arcot, but the defences of this fort were greatly inferior to those of Vellore. So terrified was Safdar Ali at his recent reverses, that he appears to have removed his head-quarters from Arcot to Vellore. Bákir Ali, brother of the deceased nabob, had lately been its governor, and was succeeded by his son Mortiz Ali,[4] the "most truculent prince in the Deccan." He had married a sister of Safdar Ali, and by his parsimonious management of his jágír, had amassed enormous wealth. The nabob was aware of this, and, at a loss to know whence he could obtain funds to pay off the enormous demand of the Mahráttas, as well as some heavy arrears which were due to the Nizam, he asked for a large contribution. The demand was met with a ready compliance in words, but the governor of Vellore was not the man to part with any portion of his wealth without compulsion. Wearied out with repeated but unfulfilled promises, the nabob imprudently threatened his cousin with dismissal from his appointment, and the latter, stung by the disgrace of such a threat, determined on revenge. An opportunity soon presented itself. In October 1742 occurred the feast of the Moharram, when most of the nabob's retainers obtained leave of absence to spend it with their friends. An attempt to poison Safdar Ali failed, and Mortiz Ali was therefore constrained to have recourse to violence. A Patán, who had a personal grievance against the nabob, was easily persuaded to become the instrument in the plot. Attended by some Abyssinian slaves, the assassin entered the chamber in the fort occupied by the nabob, over-

[4] More correctly Murtizá Khán.

powered his guards, and seizing his victim as he was attempting to escape by a window, stabbed him to the heart.

Safdar Ali.

The news of this crime roused the troops without the fort to a display of unexpected indignation. They announced their intention of storming the walls, but the astute governor held out promises of discharging the arrears of pay due to them, and thus induced them to sink their resentment and to acknowledge him as nabob.

Mortiz Ali.

The court once more returned to Arcot, where Mortiz Ali assumed the ensigns of royalty. But his occupation of the throne was short-lived, for although he possessed abundant means for satisfying the demands of his army, he was short-sighted enough to withhold the promised pay, and the exasperated soldiery, perceiving that they had been duped, withdrew their allegiance and went into open revolt. Mortiz Ali was obliged to escape to his own fortress of Vellore in the disguise of a female, there to meditate upon the act of folly into the commission of which his avarice had led him.

Muhammad Ali.

The commanders of the Carnatic army now summoned Muhammad Ali, the infant son of Safdar Ali, and his mother from Madras, and proclaiming the minor nabob, placed him under the charge of his uncle Tuckia Sahib, who had been entrusted with the governorship of the fort of Wandiwash.

News of the unsatisfactory state of affairs in the Carnatic had of course been brought to the Nizam, but ever since the assumption of the nabobship by Dost Ali, he had been unable to interfere owing to his political relations with the court of Delhi. These having at length been satisfactorily arranged, he gathered around him an enormous army, consisting it is said of 80,000 cavalry and 200,000 infantry, with which he marched to the southern capital. As resistance to so overwhelming a force was out of the question, all parties submitted, and the Nizam, confirming the youthful Muhammad Ali as nabob, appointed one Anwar-ud-dín to be his guardian.

One of the first steps of Anwar-ud-dín was to remove his ward from Wandiwash to Arcot, where he lived in security until June 1744. In that month a wedding between some members of his family took place, and was celebrated in the palace of Arcot. All went well for a while, but on the evening of the day on which the concluding rite took place, while the youthful nabob was descending the steps of the palace to greet his guardian on his arrival, a Patán soldier advanced, and, before he could be prevented, plunged a dagger into his breast.

The whole palace was, by this incident, thrown into confusion, in the midst of which Mortiz Ali, who was among the guests,

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Anwar-ud-dín.

succeeded in making his way to the gate of the fort, and, summoning his retainers around him, hurried back to Vellore.

It has never been satisfactorily ascertained who was the originator of this plot. The assassin was unfortunately killed on the spot, and the question has therefore been left for ever in doubt. Many suspected Anwar-ud-dín, but more threw the guilt upon Mortiz Ali, who certainly was capable of the crime. Anwar-ud-dín, however, was the only one who derived any advantage from the death of the young prince. He succeeded at least in persuading his patron, the Nizam, of his innocence, and was by him elevated to the vacant throne. He thus became the ancestor of those nabobs of the Carnatic from whom the cession of the country was subsequently obtained, or rather enforced, by the English Government. Sádat-ullá and Dost Ali had been such benefactors to the Carnatic, that the people clung to their family with a romantic affection, and the alienation of the throne to a stranger was regarded with universal regret and dissatisfaction. No aspirant to the nabobship who claimed a connexion with the old and much-loved line was ever without the sympathy and support of the people; and it will be seen how the French endeavoured to take advantage of this widespread feeling when attempting to establish their power in the Carnatic.

The English and French.

It is hardly necessary to narrate the circumstances which led to the grant of the various charters which were at different times obtained by the Company, or to describe the gradual increase of their trade along the Coromandel coast. France had entered the lists as a competitor in commerce, and the factories of the two countries carried on a friendly rivalry in the Indian trade for many years, though there had been war between the two nations at home. Neither had as yet conceived the idea of attacking its enemy by aiming a blow at his trade in the East; but in 1744, when a fresh war broke out in Europe, the design was entertained by the French and carried into effect.

Great was the consternation at Fort St. George when news of the unexpected danger arrived, and little did the English settlers imagine that this hostile movement on the part of the French Ministry would prove the circumstance which in the course of time would force upon the Company the acquisition of an empire in India. The opening events of the conflict gave no promise of such a result, for Madras was, in 1746, taken by a French force under Labourdonnais, and was only evacuated after the payment of a ransom.

Up to this time the Government of Madras had not come into collision with any of the Native states in the neighbourhood. Now, however, intimation of the operations of the French against

The English and French.

Madras reached the nabob, and was received with great displeasure. He forthwith despatched a remonstrance from Arcot, against what he characterized as the presumption of the French in attacking a settlement which was under his protection. His anger was easily appeased by a promise that he should share in the ransom paid by the English. This promise however remained unfulfilled, and the indignant nabob sent his own son to Madras with 10,000 troops, a force which he fondly imagined would be more than sufficient to expel the small French garrison from Fort St. George. The result showed how greatly he had overrated the powers of his troops when matched against European soldiery. The ten thousand were scattered like sheep before a thousand of the French, and retreated in the utmost disorder to Arcot.

Irritated by the disgrace of this defeat, Anwar-ud-dín was not unwilling to listen to the solicitations of the English when they applied for aid in defending their factory at Fort St. David. A considerable body of men was lent for that purpose, and the vanity of the nabob was gratified when a sudden and unexpected attack upon the French resulted in their being driven back to Pondicherry. Dupleix, the French Governor, however, soon succeeded in bringing to a close the alliance between the nabob and the English. He held out a prospect of great pecuniary advantage as resulting from a change of sides, and persuaded Anwar-ud-dín that his present allies were in reality the weaker party, a persuasion which was confirmed by our disgraceful failure at the siege of Pondicherry. The nabob therefore elected to cast in his lot with the victorious French.

The treaty of Aix-la-Chapelle, in 1748, closed the war in Europe and restored to the Company their settlement at Madras. It should have closed the contest between the two nations in India, but Dupleix, who was at the head of affairs at Pondicherry, perceived that his power was really superior to that of any other state around him, and he therefore conceived the ambitious design of turning his superiority to the establishment of a French empire in India. For the accomplishment of his plans he further resolved to take advantage of the general unpopularity of the reigning nabob.

Chanda Sahib,

One of the daughters of Dost Ali had married, some years previously, a popular and distinguished officer named Chanda Sahib. This prince was in possession of the strong fort of Trichinopoly, where his increasing influence had excited the jealousy of his brother-in-law Safdar Ali. The latter induced the Mahráttas, ever ready for such an enterprise, to attack Chanda Sahib in Trichinopoly. The fort was taken, and its gallant defender was carried away captive to Satára. His wife and family, having

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been placed in Pondicherry for greater security, escaped his fate, and it was by means of them that Dupleix proposed to carry out his plans.

Chanda Sahib,

Through Chanda Sahib's wife he entered into negotiations with the Mahráttas, and at last purchased the release of their captive at the price of seven lakhs of rupees. Chanda Sahib, on obtaining his freedom, enlisted a considerable army and marched towards the Carnatic; but before he entered its confines an event occurred which made his chances of success appear more hopeful. This was the death of the Nizam, at Hyderabad, followed of course by the usual struggle for the throne. The second son of the deceased sovereign, having command of the army, seized on the control of affairs, but a grandson, named Muzaffar Jung, asserted that his claim to succeed had been recognized by the emperor himself, and Chanda Sahib resolved on throwing in his lot with the second of the two claimants. His offer of assistance was accepted the more readily because it involved the alliance of the French, who were at that time regarded as a great military power in the country.

and Muzaffar Jung.

The direction of the united forces of Muzaffar Jung and his ally was southward, into the Carnatic, where Chanda Sahib had always been popular on his own account, and was, moreover, regarded with favour as a representative of the old line of nabobs. The army of the adventurers was therefore rapidly augmented during its progress through the provinces, and when, in July 1749, it descended the ghauts and encamped at the head of the Ambúr valley, its numbers amounted to some 40,000 fighting men.

Battle of Ambúr, 1749.

Anwar-ud-dín had lost no time in preparing to oppose the invaders, and had taken up his position near his hill fort of Ambúr. Here, following the example set by Dost Ali at Dámalcheruvu, he constructed an enormous entrenchment, behind which he stationed his artillery, served by some vagabond Europeans. The large tank, situated on the side of the valley opposite to the fort, was breached in the hope that it would render the ground lying in front of the entrenchment heavy, and thus impede the enemy in their attack. This ingenious device, however, seems not to have answered the expectations of the nabob.

Preparations for the battle were completed on the side of Muzaffar Jung by July 23rd, and the task of storming the works was entrusted to the French contingent, which was under the command of an officer named D'Autreil. His first assault was repulsed by a well directed discharge of artillery, and the second, though more successful, resulted in the French being forced back after a desperate struggle of half an hour. The partial success of this attack served, however, to damp the courage of the defen-

ders of the entrenchment, for, upon the demonstration of a third assault, they forsook their guns and fled.

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Battle of Ambúr, 1749.

The distress of Anwar-ud-dín at this repulse of his troops was great, and aggravated by a report which reached him that his son Morfiz Ali had fallen. Filled with rage and despair at this blow, more grievous than defeat, he thought only of revenging himself upon Chanda Sahib, the enemy of his family, and pointing to the spot where he perceived the standard of that prince advancing, he urged the mahout to guide his elephant in that direction. But, before he reached his intended victim, a bullet from a passing French battalion struck him and he fell dead in his howdah. All hope of making a further stand was now gone: a general rout ensued, and the whole of the cannon, elephants, horses and camp equipage of the defeated army fell into the hands of the invaders.

Chanda Sahib, Nabob.

On the day after the action Muzaffar Jung marched to Arcot, where he proclaimed himself Subahdár of the Deccan, and invested Chanda Sahib with the title of nabob.

By this time Nazir Jung, the other competitor for the nizamship, had collected an enormous army, numbering 300,000 men, and marching rapidly through this district, pursued his nephew towards Pondicherry, whither he had gone to visit M. Dupleix. The armies met at Valdavúr, near the French settlement, and in the action which ensued Muzaffar Jung was utterly defeated, and was treacherously committed to prison after he had been induced, by promises of protection and safety, to surrender himself.

French intrigues.

This defeat of his ally was an inconvenient check to the designs of Dupleix, but he resolved if possible to retrieve his position by intrigue, in the practice of which he was an adept. The conduct of Nazir Jung encouraged his hopes, for after the battle of Valdavúr the victorious army retired to Arcot, where the Nizam gave himself up to ease and luxury. He also sent back a large portion of his troops to the north, apparently imagining that the hopes of his enemies had been completely extinguished. Events, however, soon proved that such was not the case. Muhammad Ali, son of the late nabob, was closely besieged by Chanda Sahib at Trichinopoly, and Gingee was soon after taken by a French force. The Nizam, therefore, perceived that something must be done, and unwilling again to take the field, he sought for an alliance with the French. Dupleix demanded as his price the release of Muzaffar Jung and the acknowledgment of Chanda Sahib as Nabob of the Carnatic. These terms were rejected as preposterous, and preparations were made for a renewal of the campaign.

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French intrigues.

Nazir Jung now seemed to be forsaken by his wonted energy. Becoming disheartened by the further reduction of his army through sickness and scarcity, he at last yielded to the demands of the French, and without trying the hazard of a battle, agreed to sign a treaty dictated by Dupleix.

Overthrow and death of Nizam Nazir Jung.

While carrying on these negotiations Dupleix had been playing a double game, and had entered into a plot with three powerful Patán nobles in Nazir Jung's army, whom he found willing to betray their chief. They had succeeded in bringing over with them some twenty other principal leaders on the Nizam's side, and the conspirators actually commanded one-half of the whole army. His arrangements with these traitors having been matured, Dupleix ordered up a detachment from Gingee to attack the unsuspecting prince, who had only on the previous day signed the treaty. After a march of sixteen miles the detachment came upon the commencement of Nazir Jung's camp, which lay spread out over a breadth of about eighteen miles north of the Cheyár river. The advanced posts were easily disposed of, but a sharp contest took place between the French troops and the Nizam's artillery, supported by 25,000 of his infantry. Desperate charges were made and repelled by the French, whose artillery, better served than that of their enemy, did enormous execution upon the dense masses of their foes. Reinforcements kept continually pouring in to take the place of those bodies of the Nizam's troops which had been scattered by the rapid discharge of the French cannon, and it was only with the utmost difficulty that Nazir Jung's artillery was at length disposed of. For three hours the detachment fought its way through the contending bodies of the enemy, and when at last it had penetrated to the Nizam's headquarters, a formidable host appeared advancing. Dismayed at the sight the wearied troops were almost losing courage, but they soon perceived the signal of the confederates, a large white flag hoisted upon an elephant's howdah. All anxiety was now at an end, and the news brought by the conspirators showed that there was no need for further exertion since Nazir Jung was dead.

That unfortunate prince had not at first been able to persuade himself that the attacking party was in reality a portion of the army of the French, with whom he had just concluded a treaty, but messenger after messenger arrived with tidings confirming the report. Still he refused to believe in the serious nature of what he termed "the mad attempt of a parcel of drunken Europeans" to surprise his camp. Being informed of the inaction of a large portion of his army, he at once mounted his elephant and proceeded to the spot where the inactive battalions were drawn up in line of battle. He first came upon the contingent of the

Nabob of Cuddapah, one of the leaders in the treason, with their chief at their head. "Nazir Jung," writes Orme, "rode up to "him, and told him that he was a dastardly coward, who dared not "to defend the Mughal's standard against the most contemptible "of enemies. The traitor replied that he knew no enemy but "Nazir Jung, and at the same time gave the signal to a fusilier, "who rode by him on the same elephant, to fire. The shot missed, "on which Cuddapah himself discharged a carbine, which lodged "two bullets in the heart of the unfortunate Nazir Jung, who fell "dead upon the plain."

Overthrow and death of Nizam Nazir Jung.

The result of this treason was that the captive Muzaffar Jung was at once proclaimed Nizam, while Chanda Sahib was declared to be nabob. The former, however, did not long survive to enjoy his new dignity. While returning to Hyderabad, the same three nobles who had betrayed Nazir Jung revolted against his successor, and before the revolt was quelled one of them, the Nabob of Kurnool, despatched his new master by thrusting a javelin through his brain.

Bussy was in the camp, and, calling around him a council of chiefs, persuaded them to acknowledge as Nizam Salábat Jung, third son of Asaf Jáh, who was at the time a captive with the army.

Muhammad Ali, son of Anwar-ud-dín,

While these events were occurring in the north, Muhammad Ali continued closely besieged in Trichinopoly. The Government of Madras had ere this begun to regret the error into which they had fallen in allowing the French to gain so great an influence in the country. A detachment was, therefore, sent to the relief of the garrison in Trichinopoly, but so largely were the British troops outnumbered, that there was small prospect of success. Clive, who held a captain's commission in the detachment, returned to Madras on business, and, while at the presidency, suggested the advisability of creating a diversion by attacking Arcot, the capital of Chanda Sahib. His suggestion was approved, and he was himself entrusted with the command of a small force of 200 Europeans and 300 sepoys with eight field pieces. Of the eight officers who accompanied this little army four, including Clive, had but recently been writers in the Company's service, and only two out of the whole number had ever been in action.

is supported by the English.

Clive captures Arcot.

On August 25th, 1751, the party started from Madras, and five days later marched into camp, ten miles from Arcot, through a severe tempest of thunder, lightning and rain. It is said that their undaunted demeanour during the storm gave the enemy's spies such an idea of the valour of the British force, that they hurried panic-stricken to Arcot, and so demoralised the garrison

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there, that they abandoned the fort. Certain it is that when Clive the next morning reached the place, he met with no opposition, and at once took possession of the citadel.

Clive captures Arcot.

Having first laid in a supply of provisions he proceeded to beat up the fugitive garrison, and had several skirmishes with them, in which they were invariably defeated. The result aimed at by this manœuvre was soon attained. Chanda Sahib receiving news of the capture of his capital, detached 4,000 of his own troops, with 150 of the French, under the command of his son Rájá Sahib, to recapture the fortress. These arrived and occupied the town and palace on September 23rd. The next day Clive had the daring to issue from his stronghold before any progress had been made in the siege works, and succeeded in inflicting considerable loss upon the enemy in the streets of the town. This exploit, however, nearly cost him his life, and had little practical result, except in so far as it raised the courage of the English garrison, and proportionately damped the ardour of the besiegers.

Siege of Arcot, 1751.

Rájá Sahib now proceeded to invest the fort with 120 Europeans, 2,000 organized sepoys, 300 cavalry, and 5,000 irregular peons. The circumstances of the memorable siege which ensued are among the most remarkable in the history of our arms in India. But sixty days' provisions remained in the fort, though the garrison had abundance of water. They, however, narrowly escaped losing this, as the fort reservoir possessed a secret passage known to the enemy, which would enable them to drain off its whole supply. This was fortunately discovered and the vent secured.

In spite of the enormous odds against him, Clive never lost heart nor appeared at a loss for expedients to harass the enemy, or to counteract their plans; and, what was more important, he showed that he possessed the invaluable power of inspiring his troops with a portion of his own confidence. Breaches made by day in the ruined old battlements, a mile in circumference, were untiringly repaired during the nights, and the hour in which the garrison must surrender, though appearing daily close at hand, was constantly postponed, until fifty days of the siege had expired. "During this time," writes Macaulay, "the young captain maintained the defence with a firmness, vigilance and ability which would have done honour to the oldest marshal in Europe."

Within the fort had been found an enormous piece of ordnance, discharging a 72-lb. ball, which had been drawn, it was said, during Aurangzíb's expedition by a thousand yoke of oxen all the way from Delhi. This unwieldy monster Clive actually succeeded in erecting upon the highest of the fort towers, and from this position it was for some days fired once each day at the palace

Siege of Arcot, 1751.

of the nabob while Rájá Sahib and his officers were met for the purpose of holding a council of war. On the fourth day the cannon burst, but fortunately without doing any damage to the besieged, as Clive had taken the precaution of firing it by means of a train. The accident deprived the garrison of their daily diversion, and it emboldened Rájá Sahib to take steps for retaliation. A huge mound was raised, by his orders, at a short distance from the fort walls, which commanded the whole of the interior, and upon it was raised a small but powerful battery. Clive allowed the work to arrive at completion without hindrance, but no sooner were the guns in position, than he opened fire upon them with such success, that within an hour the mound was a heap of ruins, and fifty men who were stationed upon it were all either killed or severely disabled. During the siege attempts had been made both from Madras and Fort Saint David to relieve the garrison, but without success. Now, however, hope of assistance appeared from an unexpected quarter. Some Mahrátta cavalry, under a leader named Morári Rao, had been hired to assist the cause of Muhammad Ali, but, as long as fortune seemed to favour the opposite side, they had only assisted by remaining neutral. Now that the news of Clive's gallant defence reached them, they announced their readiness to come to his assistance. Rájá Sahib, aware of the threatened danger, saw that it was necessary to hurry matters to a conclusion. He therefore summoned Clive to surrender, but his message was replied to by a refusal couched in the most contemptuous terms. The offer of a present of money was indignantly rejected, and the threat that an immediate assault would be the result of continued resistance was met by the remark that Clive could not persuade himself that Rájá Sahib would be guilty of so great an indiscretion as to storm the fort with no better soldiers than the cowardly rabble which composed his army.

Seeing that there was no prospect of a surrender, Rájá Sahib resolved to adventure an assault, which took place on November 14th. The result is thus described by Macaulay:—

"The day was well fitted for a bold military enterprise; it "was the great Muhammadan festival, the Moharram, which is "sacred to the memory of Hussain, the son of Ali. Clive had "received secret intelligence of the design, had made his plans, "and, exhausted by fatigue, had thrown himself on his bed. He "was awakened by the alarm, and was instantly at his post. The "enemy advanced, driving before them elephants whose foreheads "were armed with iron plates. It was expected that the gates "would yield to the shock of these living battering rams. But the "huge beasts no sooner felt the English musket balls, than they

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Siege of Arcot, 1751.

"turned round and rushed furiously away, trampling on the multi-"tude which had urged them forward. A raft was launched on "the water, which filled one part of the ditch. Clive perceiving "that the gunners at that post did not understand their business, "took the management of a piece of artillery himself and cleared "the raft in a few minutes. Where the moat was dry the assail-"ants mounted with great boldness, but they were received with a "fire so heavy and so well directed, that it soon quelled the courage "even of fanaticism and of intoxication. The rear ranks of the "English kept the front ranks supplied with a constant succession "of loaded muskets, and every shot told upon the living mass "below. After three desperate assaults the besiegers returned "behind the ditch.

"The struggle lasted about an hour. Four hundred of the "assailants fell. The garrison lost only five or six men. The "besieged passed an anxious night looking for a renewal of the "attack. But when day broke the enemy were no more to be seen. "They had retired, leaving to the English several guns and a large "quantity of ammunition."

Thus ended the siege. The story told by Macaulay of the sepoys relinquishing their rations of rice and requesting to be allowed to subsist upon the unsubstantial diet of conjee-water is romantic, but has been found to rest upon no foundation of fact.

Clive's success.

News of the gallant defence of Arcot was received in Madras with unbounded satisfaction, and Clive became the hero of the day. Reinforcements were sent at once to enable him to follow up his successes, and Timiri, a fort nine miles from Arcot, having been summoned, submitted without a struggle. Thence the army marched in pursuit of Rájá Sahib's discomfited host towards Arni, and an engagement took place close to the Padavéd river, in which the Mahráttas, whose co-operation had been secured by the brave defence of Arcot, behaved with distinguished gallantry. The enemy were gradually forced to retreat until night put an end to the affair, but the morning revealed the fact that Rájá Sahib and his army had fled in great disorder to Gingee, leaving, much to the delight of the Mahráttas, a large quantity of stores behind them and a lakh of rupees in cash. The fortress of Arni however remained unvanquished, and its killadár declined to surrender to a general who had no battering train; so Clive was obliged to content himself with the surrender of an elephant, some horses and baggage, and a promise that the governor would swear fealty to Muhammad Ali.

Battle of Káveripák.

The army now returned to Madras, and the neighbourhood thus left unprotected fell a prey to Rájá Sahib, who employed the opportunity in ravaging it up to Conjeeveram. This led to a

Battle of Káveripák.

resolution at Madras that Clive should once more take the field against the enemy, who were with some difficulty discovered at Kávéripák, in the taluk of Wálájá. Though the English came upon them unexpectedly, and, being taken by surprise, were at first obliged to fall back, they soon rallied, and a desultory conflict was carried on in the moonlight. The enemy had the advantage in artillery, and Clive saw that his only chance of success lay in capturing the guns. A detachment was therefore marched by a circuitous route, and succeeded in making its way unperceived to the enemy's rear. A few rounds from this position soon brought matters to a conclusion, and the soldiers of Rájá Sahib, finding themselves between two fires, ran from their guns. Several were made prisoners, and among them 66 Europeans. Nine field pieces with three mortars were left upon the field, and the neighbouring fort of Kávéripák was abandoned.

Defeat and death of Chanda Sahib.

Having effectually dispersed Rájá Sahib's army, Clive started to relieve the garrison of Trichinopoly, and on his way passed near Ambúr, where the eventful battle of 1749 was fought. Here he found the commencement of a town, projected by the French commander and intended by him to be named after himself, Dupleix-Fatehábád, 'the city of Dupleix' victory.' Clive also learned that a column was under preparation, bearing a pompous inscription in Hindustani, Persian and Tamil, while medals commemorative of the late victory had already been buried beneath the intended site of the column. No vestiges of the unfinished town remain, as the English army halted for a few days on the spot and was employed in the pleasing labour of removing all traces of it. From Ambúr they marched unopposed to Trichinopoly, where fortune continued to favour our arms. Chanda Sahib surrendered and, at the instigation of Muhammad Ali, was treacherously murdered.

Muhammad Ali becomes Nabob.

The conduct of military affairs in the neighbourhood of Madras had been entrusted to a very capable and energetic officer named Lawrence. One of his first acts was to make a demonstration against Wandiwash, which was still held by Tuckia Sahib, who had married one of the daughters of the late Safdar Ali. Under the protection of this officer resided his mother-in-law, the widow of the deceased nabob, with her posthumous son. Although Major Lawrence's forces were amply sufficient to effect the reduction of the fort, Muhammad Ali, who accompanied the army, preferred the idea of replenishing his coffers with the ransom of the fortress to carrying away captive the widow and her son, though they might possibly prove future rivals. Proposals were therefore made to Tuckia Sahib, which he declared himself willing to accept. All seemed to have been

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amicably arranged, when one of the fort guns was accidentally fired into the English camp. The troops were only too glad of an opportunity of sacking the town. They therefore broke into one of the three pettahs which lay without the fort, supported by a small body of Europeans. Tuckia Sahib concluded that the nabob's overtures had been simply made to throw him off his guard, and a heavy fire was therefore opened upon, and returned by, the troops in the pettah. The contest was continued throughout the night, but in the morning an opportunity was found of explaining the mistake. The nabob's troops were called off, and the army left Wandiwash with the addition of three lakhs to its treasure chests. Meanwhile the funds at the disposal of Dupleix began to fail, and he resolved to throw over Rájá Sahib for the more pecunious governor of Vellore. To him therefore he offered the title of nabob, and after some hesitation Mortiz Ali accepted it. Before starting for Pondicherry he proposed to win back Arcot for his patron, and had arranged with the French captives in that fort a plan for their rising against the garrison, when the plot was happily discovered, and the danger averted by the removal of the prisoners to more secure quarters.

Mortiz Ali's stay at Pondicherry was however short, for he was acute enough to perceive that he was being merely used as a tool for the advancement of the French interests. He therefore took an early opportunity of escaping back to his fort, where he resolved to watch the progress of affairs.

After the dispersion of Rájá Sahib's army at Kávéripák, several portions of the Carnatic had been much harassed by the depredations of some of the adventurers who had joined that prince's standard, and who upon his overthrow had been left without employment.

Of these the most audacious was one Muhammad Kamál, who at first confined his operations to the neighbourhood of Nellore. For a while he was allowed to pillage without hindrance, as the English had more important foes in the south; but when, in 1753, he marched to Tirupati, the authorities at Madras became alarmed at the threatened loss of the large revenues of that temple, which their nabob had assigned to them. A small force was without delay sent to protect the renter, but it was surrounded by Muhammad Kamál's troops upon the plain of Tirupati and driven back with great loss. On the following day reinforcements arrived, and the issue of a battle was once more tried. At first fortune appeared again to have declared against the English, for the enemy held their ground, and the European officer in command was killed. But fortunately the elephant was killed which carried Muhammad Kamál, and he was captured.

His troops forsook him, and in consideration of the atrocities he had committed he was executed on the spot.

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Muhammad Ali becomes Nabob.

The war which had begun in Europe in 1744 had been concluded by the treaty of Aix-la-Chapelle, but hostilities had continued in India. The Court of Directors, wearied at the continued expense of the contest, now expostulated with the French ministry, who deputed a M. Godeheu to arrange matters. He arrived at Pondicherry in 1754, and a treaty was soon concluded by which Muhammad Ali was acknowledged Nabob of the Carnatic, and it was stipulated that neither party should again interfere in the affairs of Native states. It is difficult to justify the conduct of the two parties to this treaty almost immediately after its formal ratification. The English lent their troops to the nabob for the purpose of coercing his tributaries and levying contributions; while the French fitted out an expedition against Terriore. Such flagrant violations of the peace were, however, passed over in silence as a new continental war between the two countries broke out soon after.

Among the other tributaries against whom the assistance of the English was obtained were those known as the Western Poligars, namely, the zemindars of Venkatagiri, Kálahasti and Kárvetnagar, the estates of the two latter lying in this district. They all submitted without a struggle, Kálahasti paying a lakh, while Kárvetnagar contributed 80,000 rupees. From the Northern pálaiyams the expedition proceeded to Vellore, but Mortiz Ali at once sent off a complaint to the French, which produced a message from Pondicherry announcing that any proceedings against Vellore by English troops would be considered a violation of the peace. The message was speedily followed by a French force, with which the nabob had no mind to try conclusions. Vellore was therefore abandoned after Rs. 20,000 had been reluctantly parted with by its parsimonious governor.

A Mahrátta inroad, 1757.

In 1757 the Carnatic was doomed once more to suffer from one of the periodical Mahrátta inroads. A large army was sent by the Péshwa, under the command of a general named Balavant Rao, who crossed the plateau of Mysore and invested the fortress of Kadapanattam which stands at the head of the Thallapulla ghát in the taluk of Palmanér. While the main body remained before this fortress a detachment was sent on to the nabob at Arcot, with a peremptory demand for the payment of the arrears of revenue due to the Mahráttas. Muhammad Ali temporised, and meanwhile Kadapanattam surrendered after a siege of nearly three weeks. The Mahrátta army then descended the gháts, and parties scoured the country about the

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A Mahrátta inroad, 1757.

Vániyambádi valley, while Vellore and Ambúr were invested by portions of the main body.

The nabob now saw that he must come to terms, and agreed to pay two lakhs in cash, promising a further sum of two and a half lakhs so soon as he should be able to collect the sum from his feudatories. But as cash was not forthcoming from his own treasuries, he was obliged to apply to the Government of Madras for a loan, and his application was complied with, though reluctantly.

Renewal of war between French and English.

When the war of 1756 broke out between the French and the English nations in Europe, the Government of the former country resolved to make a grand attempt to regain their influence in the East and to secure for themselves the exclusive commerce of the country. With this object a formidable armament was equipped, and M. Bussy was superseded in the conduct of affairs by Count Lally, a brilliant but headstrong officer. Bussy had by this time arrived at the summit of his success, and his distinguished talents had not merited the slight put upon him by the French ministry. Had he been continued in his command, it is not improbable that the results of the war might have been far different from what they proved.

Count Lally arrived at Pondicherry on May 1st, 1758, and at once committed a fatal error in recalling Bussy from Hyderabad, where he had just succeeded in establishing his influence within the territories of the Nizam. He with reluctance obeyed the orders of his chief, and marched southwards with all the troops under his command.

Wandiwash had been constituted the head-quarters of the French in this portion of the Carnatic, and from thence several expeditions had been made against the nabob's forts in the neighbourhood. One of these, that of Chetpat, bravely resisted an attempt, made in the early part of 1757 to force it to capitulate. Its killadár, Nizar Muhammad, after enduring a long siege, was reduced to great straits, but at length reinforcements were thrown into the fort, and the enemy abandoned their designs upon the place as hopeless. They spent the interval in overrunning and plundering the country as far as Arcot, until in September they judged that Chetpat, now deserted by the reinforcements from Madras, might again be invested. The brave old killadár, Nizar Muhammad, prepared to make as brave a resistance as in the early part of the year, and meanwhile sent word to Madras that assistance was urgently needed. But this time he waited from them in vain. Muhammad Ali had long been offended at the independent spirit manifested by his subordinate, and had never forgiven him for having obtained his

appointment directly from the Nizam. He was therefore only too glad to see Nizar Muhammad in difficulties, and resolved to prevent the English from going to his rescue. To effect his purpose he insinuated to the authorities at Madras that the killadár had been bought over by the enemy, and by some means succeeded in persuading the Government that such was the case. The much needed succour was therefore withheld until the gallant defence of the place placed the fidelity of its commander beyond suspicion.

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Renewal of war between French and English.

The French had carried the petta below the fort with ease, and had erected three batteries within it; but Nizar Muhammad led a gallant sally against the principal one, drove off the gunners, dismounted the cannon, and carried off what ammunition he found stored on the spot. Hearing of this success reinforcements were sent off in hot haste to save the fort, but they arrived too late. On October 13th, though a practicable breach had been made, the garrison refused to surrender. On the following night a party of the French concealed themselves close to the fort gateway, and when in the morning an assault was made at the point where the breach had been effected, the troops in ambush escaladed the wall and gained the ramparts with but little opposition, as the main portion of the garrison was absent defending the breach. Having thus gained an entrance into the fort the escalading party attacked their enemy on their flank, and, in the confusion which resulted from the surprise, the besiegers poured in through the gap. Nizar Muhammad was shot while heroically attempting to force the assailants back, and almost the whole of his garrison were put to the sword. The ladies of his family barricaded the doors of their dwelling, but fire was set to it, the women were dragged out, and, it is said, shamefully outraged.

The sad fate of their ally naturally caused great regret at the presidency, and it was anticipated that operations would be commenced against other fortresses in the neighbourhood. Fortunately the French commander had received instructions to confine his movements to the vicinity of Pondicherry, and on no account to pass the Pálár, as the rainy season was approaching. After garrisoning Chetpat therefore the troops moved south.

The reprieve was however a short one, for after the rains were over the enemy advanced to Timiri, which surrendered without a struggle; and within a few days Arcot was invested. The defences of this place were weak, and its venal commander concluded it to be his wisest policy to accept a sum of money and betray his trust. Without firing a shot he agreed therefore, for a consideration, to admit the French forces.

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Count Lally was not present at the surrender, but hearing of it, he determined to make the most of the acquisition of the nabob's capital. Hurrying up with his division he entered the fort amid salvoes of artillery and the acclamations of his troops.

Renewal of war between French and English.

The submission of the killadár of Arcot led the garrison of Kávéripák to evacuate that fort, and the French, after quietly taking possession, advanced to Chingleput.

The object of Lally in making this advance was well known to be the reduction of Madras itself. Bussy, who had recently joined him from Hyderabad, was strongly opposed to the scheme, which also met with little favour in the eyes of the Government of Pondicherry. Lally was strongly urged to wait awhile at Arcot to obtain supplies and consolidate his forces, but he obstinately rejected all advice, and on December 12th, 1758, appeared before the presidency with 2,700 Europeans, 400 European cavalry, and 4,000 sepoys. After a two months' siege a practicable breach was effected, but the timely arrival of an English fleet in the Madras roads caused a panic in the besieging army, and Lally was mortified by having to beat a hasty retreat.

While the fate of Madras lay still in doubt, the neighbouring chiefs had been watching the contest with great eagerness. A large body of Mahráttas, who had been engaged in their favourite pastime of plunder in the district of Cuddapah, had been attracted into this district by the intelligence of the struggle. Passing through the pass of Kallúr, they established themselves in the Dámalcheruvu valley, no doubt much to the annoyance of the inhabitants of that neighbourhood. No sooner was the French army reported to be in retreat than the Mahrátta commander, Gópál Rao, had the assurance to demand a sum of twelve lakhs from the Madras Government, on the pretext of his having, at great inconvenience to himself, held his troops in readiness to march to the succour of the presidency when they should be in need of it. But though he made these representations to the English, he was not deterred from sending off another detachment after the French, offering his assistance in resuming the siege of the town. Both sides however declined his proposals, the Madras Government bidding him prove his sincerity by pursuing the retreating army and cutting it to pieces. Gópál Rao, disappointed of his expectations, retired to relieve his feelings by the plunder of the Tirupati pagoda.

For some time after the failure of the siege of Madras nothing noteworthy occurred either on the side of the French or the English. The former were dispirited by their ill success, and the English leader, Major Brereton, displayed no great aptitude. With more vigour and promptness matters might have been

brought to a successful conclusion, but Major Brereton failed to take advantage of his opportunity, and Colonel Coote was summoned to take command of the army.

Renewal of war between French and English.

Before Colonel Coote should arrive Major Brereton was anxious, if possible, to achieve at least one success. He therefore marched to attack Wandiwash, which still continued under the command of Tuckia Sahib. On September 28th, 1759, he arrived before the fort, and hearing that French reinforcements were on the move, determined on making an assault upon the following night. It began at 2 o'clock in the morning, and the southern pettah was carried successfully. But there were some 1,300 Europeans within the fort, besides native troops, and these, making a determined sally, drove the English out of the position which they had gained, and forced them to abandon their designs. Though this attempt "was much more hardy than judicious," says Orme, "the great gallantry and the inferior number of the "body which sustained the greatest part of the loss rather "increased than diminished the confidence of the army."

Major Brereton now withdrew his forces, but the French, though thus relieved from the danger of an attack by an English army, were menaced by another and a hardly less perilous danger. This was a mutiny among the European troops composing the garrison of Wandiwash. Disaffection had some time previously been exhibited by the troops at Chetpat, but the spirit of insubordination appeared to have subsided. The causes which gave rise to the discontent had however not been removed. The troops were twelve months in arrears of pay, and subject to the greatest distress from want of both provisions and clothing. Symptoms of discontent had for some time been exhibited, and on October 16th the whole body of the European troops marched under arms, carrying their artillery with them, and encamped at the base of the rocky hill which stands at a short distance north of the fort. There they chose out officers from among themselves, and continued, with the utmost regularity, the daily routine of military life. All expostulations from their officers were in vain, and the Council at Pondicherry was at last obliged to despatch Viscount Fumel, with a promise of six months' pay and a general pardon. These terms were accepted, and the army regarrisoned the citadel.

Eyre Coote takes command, 1759.

In November Colonel Coote arrived and assumed command of the Madras army, into the actions of which he infused new vigour. He promptly resolved upon effecting the reduction of Wandiwash. Major Brereton, now second in command, was sent by the direct route, while Coote, to divert the attention of the enemy, marched by way of Arcot. On his way he was opposed

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by a division of the French army at Chakramallúr, but repelled the attack. The enemy's troops outside the fort of Arcot also retreated and hurried back to Chetpat.

Eyre Coote takes command, 1759.

Colonel Coote arrived at Wandiwash on November 28th, and found that Major Brereton had already got into position a battery against the south-west angle of the fort. A second battery was soon completed, and both opened fire on the 29th. Upon the following day the killadár sued for terms. These were offered, but no reply having been received within the stipulated time, the order for a general assault was given. It was unopposed, and Wandiwash passed to the English without the loss of a single life. The killadár was removed from his office and was sent a prisoner to Kailása Drúg, a hill fort six miles distant from Vellore.[5]

Battle of Wandiwash.

After the mutiny at Wandiwash, Lally had removed a large portion of his army to the south. It was in consequence of this error that Coote had been able to capture Wandiwash with so little difficulty, and Lally, now appreciating his mistake, recalled almost the whole of the French army from the neighbourhood of Trichinopoly, whither he had sent it. He also secured at a high price the services of a large body of Mahráttas, who had been waiting at Kadapanattam to see which side would offer the more liberal terms. With these he advanced, about the middle of January 1760, and laid siege to Wandiwash. Bussy entirely disapproved of the scheme, and did his utmost to dissuade his chief from it, but the misunderstandings between the two commanders had increased of late, and Bussy's wise suggestions were rejected. From the very commencement of his Indian career Lally had systematically treated the advice of his colleague with contempt, and had in consequence more than once fallen into the commission of very fatal errors. Not the least of these was the injudicious attempt to recover Wandiwash.

The pettas having been taken, batteries were raised against the fort. Coote received daily intelligence of the progress of affairs, but resolved to wait, and, when he did risk a battle, to have the choice of attacking the party engaged in the siege, or the army which covered them on the plain. On January 20th news was received that the main rampart had been breached, and Coote now judged it time to advance. At dawn of the next day he was within sight of the fort, and, after a reconnaisance, decided upon attacking the French army camped on the plain to the east. Marching along the eastern side of the hill of Wandiwash, which stands two miles north of the fort, he skirted its southern base,

[5] Or possibly Ambúr Drúg, which is also called Kailása.

Battle of Wandiwash.

intending to take up a highly advantageous position between the hill and fort. Lally appears at first not to have appreciated the object of Coote's manœuvre, for little opposition was offered to the advance of the English force, and the few attacks of the Mahrátta and French cavalry were easily repelled. When it was too late to defeat Coote's scheme the movement had been accomplished; the English line was marching with one flank resting upon the rocky ground at the base of the hill, while the other extended as far as the paddy-fields which lie north of the fort, and was further protected by the fire from the fort guns. In this position Coote had the power of communicating at will with the garrison, and the choice of attacking the French camp, their batteries, or their trenches. He had already decided on attacking the camp.

Lally hastened to retrieve his error, and the French beat to arms. They mustered 2,250 European infantry, cavalry and artillery, with 1,300 sepoys and 3,000 Mahrátta horse. Coote's army numbered about 1,800 European infantry with 80 English troopers, and 2,100 sepoys with 1,250 Native cavalry. As soon as the French army was observed marching out of the camp the English halted, faced towards the enemy, and advanced to meet them. The battle was commenced by a cavalry charge, led by Count Lally in person. The native portion of Coote's horse threw themselves into confusion in wheeling to receive the charge, and being thus disordered broke away, and left their 80 European comrades to repel the attack alone. They would have fared but ill had it not been for the promptitude of an artillery officer, who, perceiving the danger, reserved the fire of his two guns until the enemy were directly opposite to him, when he poured into their squadrons several rounds in quick succession. They were instantly thrown into utter confusion, and within a minute the whole body retreated, pursued by the English troopers and those few Indian horse who, seeing the result of the charge, had gathered up sufficient courage to take part in the pursuit.

This opening attack of the French having proved unsuccessful, a cannonade was commenced on both sides, but while that of the French was so ill directed as to have no effect, the fire from the English guns greatly harassed the French line. Perceiving the disadvantage under which his troops were fighting, Lally determined to take them to close quarters. A fusilade commenced, while the armies were still at long range, and two or three shots struck Colonel Coote without disabling him.

The French attack was led by the Regiment of Lorraine, consisting of about 400 Europeans. Coote ordered his men to withhold their fire until the enemy were within effective distance. They came on in column, twelve abreast, and were met at fifty

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Battle of Wandiwash.

yards distance with a deadly volley which brought down several but did not check the advance. In a few seconds both sides were struggling in a hand-to-hand encounter. The attacking column by its sheer weight bore down those of the English who were directly opposed to them, but the rest of the line instantly wheeled in upon their flanks, and attacked them with the utmost fury. In hardly more than a minute the French column was utterly demoralised, and fled in disorder, leaving the ground strewn with the dead and dying.

The English line was now formed into order, and was preparing to follow up its success, when an accident occurred which added to the confusion in the French army. Lally had made use of the bund of the Wandiwash tank as an entrenchment from behind which his field pieces delivered their fire. A shot from one of the English guns struck a tumbrel of ammunition stationed here, and the explosion which resulted, besides killing or mortally wounding no less than eighty men, terrified the whole of the troops stationed in the dry bed of the tank, and caused them to flee precipitately towards their tents. Coote, observing the opportunity, ordered Major Brereton, second in command, to advance without delay to capture the bund. Bussy had rallied a few of the fugitives, and with these, as well as two platoons of Europeans, who had maintained their order, he awaited the attack. Major Brereton advanced rapidly to the western end of the bund, where his regiment made an impetuous charge. Bussy delivered a heavy volley at close quarters, under which Major Brereton fell mortally wounded, but the tank was carried and all the cannon captured.

Meanwhile Coote was carrying on the conflict on the plain, and the French, having no artillery with which to return the English fire, soon showed signs of disorder. Bussy, who had been driven out of the tank, had taken command of them, and placing himself at the head of the wavering line, called upon them to charge with the bayonet. They answered to his call, and advanced for a short distance, but their leader's horse being shot under him, and he having to dismount, they grew disheartened, and shrunk back galled by the heavy fire from their foes. The English line now advanced, and the French, without waiting to receive their charge, fled precipitately, leaving Bussy a prisoner in the hands of the English. He was after the battle liberated in consideration of his generous conduct to British captives in the Northern Circars.

The whole of the enemy's forces were now in retreat. They were only saved from complete destruction by the intervention of their cavalry. These had been retreating before the English horse while the battle continued, but had avoided an encounter with

their pursuers by means of adroit manœuvring. They now formed into squadrons and covered the approach to the camp, into which fugitives were constantly pouring. Our native troopers were unwilling to venture on a charge, and the 80 Europeans were too few to do so alone. They, therefore, held aloof, while the French regiments formed into some degree of order, set fire to their tents, and, taking with them three pieces of artillery left in the camp, retreated under the protection of their cavalry. They were pursued for five miles, but Coote's native horse proved so utterly wanting in spirit that nothing was achieved.

Battle of Wandiwash.

The success was, however, complete. Twenty-four cannon with eleven tumbrels of ammunition were captured, as well as the whole of the camp equipage of the defeated army. Two hundred Europeans were found dead upon the field, while almost as many were taken prisoners. The loss among the native troops on both sides was inconsiderable, as they had really taken no part in the engagement. Success was won entirely by the exertions of the Europeans, and the "Commandant of the sepoys," says Orme, "complimenting Colonel Coote on the victory, thanked him for "the *sight* of such a battle as they had never seen."

Final defeat of the French.

From Wandiwash Coote now pressed on with his accustomed energy to Chetpat, and opened fire upon the fort on the 29th. Within a few hours the commandant surrendered, and nine more guns with a considerable amount of ammunition and several prisoners fell to the English. Three days later Timiri was retaken, and operations were commenced against Arcot with such success that within a week the garrison offered to surrender if allowed all the honours of war. Coote having the decided advantage, declined to grant such terms, and on the subsequent day the fort was unconditionally given up. Mortiz Ali, perceiving how the tide had turned in favour of the English, submitted without a struggle, and the jágírdár of Arni, who had as far as possible remained neutral during recent events, now declared for the nabob. By the close of the year Coote had regained every fortress in this portion of the Carnatic with the exception of Pondicherry and Gingee. The former fell in January of the following year, and Gingee yielded after a short siege in April 1762.

Thus ended the contest between the French and English, which had continued almost without interruption for the last fifteen years. It left the French without a settlement in the Carnatic, and completely destroyed their hopes of establishing an empire in the country.

Fighting at Tirupati.

During this time Tirupati had been the scene of several struggles for possession of the very considerable income derived from the offerings made at its celebrated shrine. Unlike other

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similar institutions in the country, the revenues of Tirupati had for very many years, if not always, been paid over to the ruler of the districts within which it is situated. The Nabobs of the Carnatic, like their predecessors, had yearly received nearly two lakhs from the place, and lately this valuable source of income had been assigned to the English in consideration of the assistance rendered by them in establishing the nabob's power in the Carnatic.

In 1753 the temple had been menaced by the freebooter Muhammad Kamál from Nellore, whose defeat and execution have already been narrated. In 1756, it was once more threatened, and the danger was again from the direction of Nellore. A brother of the nabob named Nazíbullá had rebelled against the authority of Muhammad Ali, and, retiring to the north, amused himself and his followers by frequent raids upon the territories of the three western zemindárs. These diversions, as they did not seriously affect the interests of the Company, were regarded with indifference at Madras; but in August 1757 Nazíbullá invested the nabob's fort of Sálava.[6] His movements were reported, and no doubt was entertained that his object was the acquisition of the offerings which would be received at the approaching feast. During this festival, known as the Bramha-utsavam, a very large proportion of the revenues of each year are realized from the crowds of pilgrims who attend during the few days it continues. To prevent the appropriation of these by Nazíbullá a detachment was sent from Madras, which occupied the town below the sacred hills. Nazíbullá's designs being thus frustrated, he retired from the neighbourhood, but displayed his resentment by stopping and turning back as many pilgrims as he met, so that the income of the temple for that year was seriously diminished.

In 1758 danger again threatened the holy place from another brother of the nabob, named Abdul Wahâb. He had originally been appointed to the killadárship of Arcot, but during the siege of Chetpat, suspicions, probably groundless, were excited in the mind of Muhammad Ali against him and his mother. Fearing the result of this misunderstanding, the mother and son fled to the small fort of Chittoor, which belonged to the former. Though the nabob attempted to convince his brother that all suspicions as to his fidelity had been removed, the assurances were not believed, and Abdul Wahâb continued at Chittoor, maintaining himself and a small body of followers by collecting as much as he could of the peshkash due by the Chittoor poligars.

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[6] This may be Márkarázudrúg, or Ákásarázukóta near Náráyanavanam, but perhaps more probably the latter.

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In 1758 he resolved on trying his fortune against the wealthy pagoda. Raising a considerable force he threatened the lower town, but was deterred from making any decided attempt to plunder the temple by rumours of the advance of an English force. He, therefore, retired, and seized possession of the fort of Chendragiri, where he awaited a more favourable opportunity.

When Bussy soon after this returned from Hyderabad to effect a junction with Lally before his advance against Madras, he halted at Tirupati, and seizing the person of the Company's renter, intimidated him into resigning to him the revenues of the temple. Nazíbullá from Nellore and Abdul Waháb from Chendragiri, here joined him, and accompanied his army to the south. The latter, however, had only allied himself with the French under the impression that he would obtain the grant of the Tirupati revenues. Being disappointed in this expectation, he left the army, and once more took up his residence in the fort of Chendragiri.

In 1759 another band of adventurers appeared upon the scene. These were the Mahráttas under Gópál Rao, who encamped at Dámalcheruvu during the progress of the siege of Madras. When both the French and the English declined to have anything to say to him after that siege was raisəd, Gópál Rao marched to Tirupati, ascended the hill, and took possession of the pagoda in March, hoping to realize the income which would be received during the festival in April. Before that feast, however, the main portion of his force was recalled by Báláji Rao, and the small detachment, which was left under the command of one Náráyanasástri, was easily dispossessed by Abdul Waháb from Chendragiri. The latter was unwilling to risk the chance of being chastised by the English. He, therefore, reported his success to the Madras Government, and submitted a humble request that he might be allowed to farm the revenues. His prayer was rejected, and the existing renter was confirmed.

Náráyanasástri had only returned to the páliam of Karakambádi on the east of the Tirupati range. Having obtained the assistance of the poligar, he in July ascended the hills and reoccupied the pagoda. A force of 300 sepoys and 15 Europeans was sent to dislodge him, but it was discovered that only 80 out of the whole number were privileged to ascend the hill, which is only accessible to caste Hindus. This handful was, however, sent up to oust the adventurers, and a furious contest took place, in which numbers were killed, both within and without the sacred precincts of the temple. In the end the sepoys were driven back, and application for reinforcements were sent to Madras. When these arrived it was found that the previous error had been repeated, and that the majority of those composing the

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reinforcement were either Musalmans or other classes not entitled to ascend the hill. Not wishing, therefore, to venture upon a second attempt upon the temple, Major Calliaud, who commanded the English forces, decided on creating a diversion by attacking the stronghold of the Karakambádi poligar. The village of Karakambádi was burned, and the poligar himself killed in the engagement which took place. This damped the courage of the Mahrattás and their allies, and an attack upon the pagoda on the succeeding day, though the defenders doubled the assailants in number, was entirely successful. Naráyanasástri retreated with the remnant of his force, and the renter was reinstated. A small body of English troops was left to protect him for a time. These were so much annoyed by the poligar's peons, that a raid into the jungles of Karakambádi was resolved upon. It proved disastrous, as the English officer in command was killed and the sepoys were forced to retire to Tirupati.

First assignment of territory to the English by the nabob.

The close of the war between the French and English left Muhammad Ali established as Nabob of the Carnatic without a rival. But this result had been attained almost wholly by the exertions of his English allies, and to recoup themselves for the heavy expenses which they had incurred, the Madras Government demanded from the nabob a contribution of fifty lakhs of rupees. "But the Carnatic," says Marshman, "had been without any "settled government for twenty years. Every invader had deso-"lated its districts, and the poligars paid no revenue but at the "sword's point. The country was, moreover, now in the hands of "a court at once wasteful and neglectful, which had been subsist-"ing for years on loans raised on exorbitant terms at Madras, "which impaired the strength of those who borrowed the money "and the morals of those who lent it."

Under these circumstances the nabob proposed that the Madras Government should assist him in enforcing the payment of subsidies from his wealthy tributaries at Vellore, Tanjore and Madura. In accordance with his suggestion an English contingent was sent to Vellore, where Mortiz Ali had made preparations to resist the demand. The strength of the fort was such that for three months it withstood the attempts of the combined armies to reduce it, but Mortiz Ali was at length obliged to submit, and reluctantly parted with a large sum of money. The effect of negotiations was tried with the Rájá of Tanjore, who finally consented to pay twenty-two lakhs in four instalments and four lakhs a year as tribute.

But though these sums were paid into the Madras treasury and placed to the credit of the nabob's account with the Company, a large balance still remained outstanding against him, and the

Company found themselves saddled with the expensive duty of protecting their helpless ally for an indefinite time in the future. They, therefore, demanded that the revenues of certain of his districts should be assigned to them, and that the proceeds of these, after first liquidating the nabob's private debts, should be devoted to clearing off the balance standing in the Company's accounts. The nabob necessarily consented, and assigned districts yielding annually about sixteen lakhs of rupees. The necessary sanad for these was signed on October 16th, 1763, and a firman from the emperor was shortly afterwards sought for from Delhi and obtained.

First assignment of territory to the English by the nabob.

In 1763 the war in Europe was terminated by the treaty of Paris. This recognized Muhammad Ali as Nabob of the Carnatic and Salábat Jung as Subahdár of the Deccan. But the latter had been supplanted and confined by his brother Nizam Ali as long ago as 1761. Nizam Ali naturally became alarmed at the terms of the European treaty, and promptly caused his captive brother to be assassinated, while he prepared to invade the Carnatic. His progress was marked by the devastation of the country and the plunder and torture of its inhabitants. The nabob at once called upon the Government of Madras to fulfil the terms of their engagement with him, and a strong force was sent forward, under the command of Captain Campbell, to oppose the Nizam's army. They came upon the invaders on the plain of Tirupati late one evening, and were prepared to try conclusions with them next morning. But the Nizam had for some time been straitened for want of provisions and water for his enormous army, and on the morning succeeding the day on which the two armies had arrived within view of one another, Captain Campbell looked in vain for any signs of the enemy whom he expected to engage in battle. He discovered that the whole host had silently decamped in the darkness of the night, and had already passed Kálahasti in their precipitate flight towards Nellore. One consequence of this invasion was that Muhammad Ali applied, through Clive, to the emperor for a firman which rendered him independent of the Government of Hyderabad. The document which conferred this authority decorated the nabob with the titles of Wálájá and Anwár-ul-Hind.

Treaty with the Nizam.

In 1758 the Nizam had temporarily ceded to the Madras Government the districts known as the Northern Circars, but had persistently refused to grant them permanently though frequently desired to do so. In 1765 Lord Clive, during his second administration, settled the matter by obtaining from the emperor a grant of the districts: and the Nizam, hearing of this arrangement, prepared to retaliate by invading the Carnatic.

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Treaty with the Nizam.

The Madras Government, alarmed at the prospect of a fresh war under the straitened circumstances to which they were reduced, resolved upon coming to terms, and despatched Major Calliaud to conduct negotiations. The result was "the disastrous and humiliating treaty of November 12th, 1766, by which the Madras "authorities agreed to hold the Northern Circars, which had been "conferred upon them by the paramount power in India, as a "tributary tenure under the Nizam. . . . . . . But what "was still more objectionable, the President involved the Company "in the intricate web of Deccan politics by engaging to furnish "the Nizam with two battalions of infantry and two guns to settle, "in every thing that was right and proper, the affairs of His Highness' Government, well knowing that the first requisition for "the troops would be to assist in attacking Hyder Ali, who had "recently usurped the Mysore throne, and against whom a confederacy had been formed of the Mahráttas and the Nizam."[1]

Hyder Ali.

Mysore was one of those provinces which had sprung up after the dissolution of the Vijayanagar kingdom. After reigning for two centuries the Hindu line of princes had become effete, and their authority was usurped by a prime minister named Nanjeráj. Under his auspices the celebrated Hyder Ali first rose into distinction.

He was born in 1702, the son of a petty officer, and began his career with the command of a small body of horse and foot. From this he was shortly promoted to the charge of the province of Dindigul, where, by consummate dissimulation and indiscriminate plunder, he gradually increased the forces under his command and paved the way for supplanting the supplanter of the Mysore ráj.

An inroad of the Mahráttas, which reduced the minister to the greatest straits, afforded Hyder his first opportunity. He came forward to the assistance of Nanjeráj with the money required to meet the Mahrátta demand, and received as an acknowledgment extensive jágírs. By gradually increasing the obligations under which the minister lay, Hyder managed in time to acquire nearly half of the dominions of the Mysore ráj. But at length the jealousy of his patron was awakened, and an army was despatched which totally defeated Hyder. He, however, lost none of his self-possession, but cunningly throwing his pursuer off his guard, raised another army with which he presented himself before the Mysore capital and demanded payment of his debts. Payment was impossible, and the rájá, yielding to necessity, resigned his authority

[1] Marshman's *History of India*.

to Hyder on condition of receiving for himself and his minister liberal assignments from the revenues of the province.

Hyder Ali.

It was in 1761 that Hyder assumed the supreme authority in Mysore. His rising power led the Mahráttas to send an expedition against him in 1765. He was defeated and forced to cede a large extent of territory, besides paying a heavy indemnity. Within a year he, however, proved that his resources were very far from being destroyed, for he extended his territory by extensive acquisitions upon the Western Coast, and thus led the Nizam and Mahráttas to form the confederacy referred to for the purpose of effectually humbling his pride. The English were invited to assist in crushing the man, who was with truth represented to be the common enemy to the peace of Southern India, and they agreed to join the confederacy.

It was arranged that the Nizam with the English should reduce the fort of Bangalore, while the Mahráttas advanced across the Kistna. Early in 1767 the advance was made, but Hyder succeeded in buying off the Mahráttas, and soon after detached the Nizam as well from the confederacy. Colonel Smith, who commanded the Madras army, had therefore to act alone. He had marched without delay into the Báramahál, but perceiving unmistakable signs of the Nizam's defection, retired towards the frontiers of the Carnatic.

Hyder invades the Carnatic.

Hyder on advancing and descending the ghâts received a decided check on August 25th at Chengam, in the South Arcot district, and subsequently suffered a further defeat at Tiruvannámalai, but in spite of these reverses he was able to make his way to Vellore and encamp there during the rains. Colonel Smith at the same time withdrew his forces into cantonments at Wandiwash, Conjeeveram and Trichinopoly.

Hyder allowed his army short rest, and while the English commander remained inactive, with his troops separated by wide intervals, the Mysore army had taken Tiruvettipuram and Vániyambádi, and was engaged in investing Ambúrdrúg, a fort of considerable strength, built upon the summit of a rocky hill which is accessible upon only one of its faces. The place was invested on November 10th, and five days later the lower fort was so dismantled that Captain Calvert, the English commander, was obliged to retire to the citadel upon the summit of the rock. His garrison consisted of but one commissioned officer, a serjeant and 15 European soldiers, with 500 sepoys. The fort had, during the opening portion of the campaign, been left in the command of its Muhammadan killadár, Kuchlis Khán, whom Hyder had been in secret treaty with, and had succeeded in persuading to betray the fort. The plot was happily discovered, but only at the critical moment

Siege of Ambúr.

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Siege of Ambúr.

when Calvert was driven out of the lower fort. He promptly committed the traitor, with his principal officers, to confinement in the drúg, and disarming the disaffected troops, employed them in menial work connected with the siege.

The defence of the upper fort was protracted for many days. Repeated surprises were defeated by the vigilance of the garrison, and Hyder in despair determined to try whether the European commandant could not be bought as the Muhammadan had been. Calvert replied to his message that the bearer of a second proposal of the kind would be hanged in the sight of the whole Mysore army, and Hyder was therefore obliged to continue active operations.

News of the critical condition of Ambúr had by this time reached Colonel Smith, who arrived before the fort on December 7th, causing Hyder to raise the siege and to retire to Kávéripák. Hearing soon after that an expedition from Bombay had been sent against his possessions on the Western Coast, he withdrew his army to that portion of his dominions.

Fresh treaty with the Nizam, 1768.

About the same time the Nizam, being threatened by a force sent against his capital from Bengal, and seeing the unexpected turn that affairs had taken, offered to renew his alliance with the English. He was camped at the head of the Kallúr Pass, whither Colonel Smith was persuaded to send an officer to conduct an envoy to Madras. His negotiations led to the execution, in February 1768, of a fresh treaty, if possible more humiliating than that of 1766, for the English, being now masters of the situation, might have dictated their own terms. Instead of doing so they again consented to hold the Northern Circars under the Nizam, and engaged to conquer the Carnatic Bálághát and to hold it subject to the payment of tribute to the Nizam and 'chout' to the Mahráttas. The remaining provisions of the treaty were generally confirmatory of those of 1766, but the English contingent was now to assist the Hyderabad army "whenever His Highness should require them."

The British invade Mysore, 1768.

In accordance with the engagement to conquer the Bálághát, Colonel Smith was ordered to proceed to that province. The advanced body of the army, under Colonel Campbell, ascended the ghát and occupied the fort of Venkatagirikóta, from whence a detachment was sent back to open up the Náyakkanéri Ghát and to reduce Peddanaididrúg. Colonel Smith followed with the main army, and, though hampered by the restrictions put upon him by the Madras Government, he achieved the most brilliant successes. Hyder in alarm proposed to cede the Báramahál and to pay a sum of money, but his offer was rejected and the campaign continued, though with a marked change of fortune, for

Hyder not only recovered all the forts which he had lost, but descending into the Carnatic, ravaged it in all directions.

Hyder dictates peace, 1769.

Being again opposed by Colonel Smith, who had for a while been recalled from his command, Hyder determined not to risk a battle, and sending back the chief portion of his army into Mysore, he himself, with a chosen body of 6,000 horse, hastened by forced marches to Madras, accomplishing the distance of 130 miles within three days and a half. Paralyzed by the suddenness of the movement, the President agreed to Hyder's terms, and concluded a treaty on the basis of a mutual restitution of conquests, and a promise of help in the future. Thus ended the first Mysore war in 1769.

The promise of assistance was soon violated by the Madras Government,[8] for in the succeeding year, when Hyder was again attacked by the Mahráttas, although he sent repeated applications to Madras for aid, the President declined to interfere, and Mysore was left to its fate. The consequence was that Hyder's army was utterly defeated, and he was forced to pay an indemnity to the Mahráttas. Such a disgraceful breach of faith naturally exasperated him, but he was too thoroughly humbled by the results of the campaign to do more than nurse his resentment and resolve on subsequent revenge.

Second Mysore war, 1779.

In 1778 war again broke out between England and France, and extended to their possessions in this country. Pondicherry was taken, and the reduction of Máhé, upon the Western Coast, was planned. Hyder, learning of the design, announced to the English Government that any attack upon the place would result in his invading their territories in the Carnatic. In spite of the threat, however, Máhé was reduced, and Hyder resolved on invading the Carnatic. The Mahráttas had also reason to be dissatisfied with their treatment by the English, and suggested that the Mysore army should co-operate with them against the common foe. The suggestion was, of course, eagerly accepted, and extensive preparations began at Seringapatam.

The authorities at Madras appear to have been most unaccountably ignorant of what was in progress in Mysore, for we find the Governor, Sir Thomas Rumbolt, on leaving India at this time, recording his "confidence that there was no likelihood of any troubles on this side of India." The nabob appears, however, to have had an intimation of the alliance, for as early as November 1779 he warned the President of the coalition between Hyder

[8] The President and Council at Madras wished to fulfil their engagements and assist Hyder, but they were overruled by Sir John Lindsay, who had been sent from England to represent the King at the court of the Nabob of the Carnatic.

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and the Mahráttas; but his warning was disregarded, and the Government continued to dream of peace and safety.

Second Mysore war, 1779.

They were rudely awakened by a message from the officer commanding at Vellore, who announced, on June 19th, 1780, that an enormous army had left Seringapatam, and was already arrived at Bangalore. This was followed by tidings from Ambúr, reporting that the enemy had, on July 20th, descended the gháts at Chengam, and were actually within the Carnatic.

The unpardonable apathy displayed by the Government now left them without the means of opposing this invasion, which was characterized by unexampled cruelty. Hyder drew a belt of destruction around Madras, from Pulicat in the north to Pondicherry in the south, while round Vellore he described a similar circle with a radius of about a dozen miles. Villages along these lines of desolation were sacked and reduced to ashes, the wretched inhabitants being commanded to migrate at once with their flocks and herds. Those who ventured to linger near their homes were ruthlessly tortured and even mutilated. The miseries of the *Hyder kalábana*, as this invasion is called, are still spoken of by the people of the district.

No step was taken to meet the danger until the smoke of burning villages was clearly visible from St. Thomas' Mount. Then hurried orders were sent to Guntoor, directing Colonel Baillie, in command of a detachment there, to hasten southwards by way of Kálahasti and Tirupati. The Colonel fortunately perceived the danger of such a route, and returned by a course nearer to the sea coast.

Without waiting for the arrival of the detachment from Guntoor, the Commander-in-Chief, Sir Hector Munro, advanced from St. Thomas' Mount to Chingleput, with the intention of raising the siege of Arcot, in which Hyder was engaged. He reached Conjeeveram on August 29th, hoping soon to be joined by Baillie, but the latter was delayed by the unforeseen accident of freshes coming down the Korttalaiyár. He was kept an impatient prisoner on the northern bank of that river until September 4th, when he effected a passage with 207 Europeans, 2,606 sepoys and 10 field pieces. Tippoo was deputed to intercept the detachment, and an engagement took place at Perumbákkam, on the northern bank of the river and just beyond the border of this district. In it both sides suffered severely, and while Colonel Baillie reported to the Commander-in-Chief that he could advance no further, Tippoo announced to his father that without reinforcements he could make no impression upon the English.

Instead of advancing to unite with Colonel Baillie, Sir Hector Munro still further separated his army by sending a detachment

to join him. Fortunately Colonel Floyd, in charge of the reinforcement, succeeded in reaching Baillie's camp on September 9th, and on the same night the two brigades advanced. Hyder was dismayed at the success of the manœuvre. His army was by it placed between two powerful bodies of the enemy, and had the Commander-in-Chief acted with common prudence and energy, the fortunes of the day might have been far different to what they proved. On the contrary, he remained inactive, and Hyder, once convinced that he contemplated no movement, marched to encounter the forces under Baillie.

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Second Mysore war, 1779.

The engagement began early in the morning of August 18th, at Pullalúr, near Palúr of the Wálájá taluk. Colonel Baillie's brigades were completely surrounded and their escape rendered hopeless. "It was in vain," says Marshman, "that the men "performed prodigies of valour, and repeatedly stormed the bat-"teries. The enemy had chosen their position with great skill, "and poured in a destructive fire. The European soldiers, though "they had sustained thirteen attacks, and were reduced to three "hundred, still called out to be led against their assailants; but "Baillie refused to sacrifice the lives of these brave men, and held "out a flag of truce. They had no sooner laid down their arms, "however, than Hyder's men rushed upon them, and would have "butchered the whole body if the French officers had not inter-"fered to save them. Of eighty-six officers twenty were killed or "wounded, and the whole army, with its stores, baggage and "equipments, was totally and irretrievably lost." Cultivators tilling the soil of the battle field even now turn up coins with their ploughs, and it is said that these were, in default of cannon balls, fired from the British guns.

Sir Hector Munro could not, at this time, have been more than a few miles distant from the scene of the battle. Had he advanced to the rescue, the defeat might have been converted into a victory, but he held aloof, and on learning the result of the action, threw the heavier of his guns into the big tank of Conjeeveram and retreated upon Madras.

News of the disastrous commencement of the war was speedily sent to Bengal, where Warren Hastings, then Governor-General, declared it to be his opinion that there was "no hope unless Sir "Eyre Coote would at this time stand forth and vindicate in his "own person the rights and honour of the British arms." Though feeble in health and advanced in years, this veteran commander accepted the invitation to return to the scene of his early glory, and arrived at Madras on November 5th. He found the arrangements for taking the field so utterly neglected, that he was obliged to postpone active operations until he had at his command

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a sufficiency of provisions and means of transport to justify the attempt.

Second Mysore war, 1779.

Meanwhile Hyder had returned from the neighbourhood of Conjeeveram to resume the siege of Arcot, and on September 19th had again invested the town, which was surrounded by a fortified wall some miles in circuit. After six weeks two practicable breaches were effected, and assaults were directed to be made. One under the direction of Tippoo was repulsed, but the success of the other dispirited the garrison, and Tippoo gained an entrance upon a second attempt. The defenders were thus forced to retire into the fort which had been so heroically defended by Clive in 1752. But the officer now in command had to contend against disaffection among his own men, a danger from which Clive had happily been free. Muhammad Ali's Bráhman governor of the soubah, Ac'channa Pandit, better known as Rájá Birbúr or Ráyoji, had been made prisoner in the assault upon the town, and was prevailed upon by Hyder to exert his influence in raising a spirit of disaffection among the garrison. The design succeeded, and the English officers were in consequence obliged to surrender the fort upon favourable terms.

It was as late as January 17th, 1781, before Sir Eyre Coote was able to move, and even then the equipments and supplies of his army were miserably defective. By that time Ambúr had capitulated, and Hyder was occupied in the sieges of Vellore and Wandiwash. The defence of the latter place forms one of the most romantic and honourable episodes in the war, and merits a celebrity greater than it possesses.

Flint's defence of Wandiwash, 1780–81.

At the commencement of the war it had been recognized that no dependence could be placed upon any of the nabob's officers to whom the defence of the Carnatic strongholds had been entrusted. It was accordingly resolved that European officers should be deputed to take charge of all posts of importance, and Lieutenant Flint was selected for the fort of Wandiwash. On August 10th, 1780, he had left Karunguli with a hundred sepoys, and by pursuing unfrequented paths had eluded the cavalry of Hyder interposed between him and his destination. Late on the afternoon of the 11th he arrived at Wandiwash, and was met by messengers from the killadár, warning him that any advance on the part of his troops would draw upon them the fire of the fort. Flint affected to believe that these messages were the result of a misapprehension, and continued his advance. He was again directed to retire, but on professing to have a letter from the nabob, was granted a conference, slightly attended, near the fort gate. Arrived there he admitted having nothing beyond the orders of his own Government, the authority of which the killadár

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derisively declined to admit. Remonstrances were useless, and the interview seemed destined to be fruitless, when success was assured by the promptitude of the young lieutenant, who, as the governor was about to retire, sprung upon him, pinioned him, and ordered his escort of four sepoys to stand with bayonets pointed at the governor's breast. The guard were powerless from astonishment, and before they regained their self-possession the rest of Flint's company had reached the spot. The killadár, thus artfully ensnared, reluctantly admitted the whole body, and forfeited the heavy bribe which he had expected that very day to secure from Hyder Ali.

Flint's defence of Wandiwash, 1780-81.

Flint found the works of Wandiwash in a most ruinous condition, though well furnished with cannon. Many of these, however, were useless from want of carriages and insufficiency of ammunition. He at once set to work to repair the works, to construct carriages, and to manufacture powder. No trained artillerymen were available, but this difficulty was overcome by impressing the services of the ironsmiths of the town, and converting them, by dint of frequent drilling, into very tolerable gunners.

Hearing of the miscarriage of his attempt to corrupt the killadár, Hyder marched to Wandiwash, and invested it early in December. During the whole period of the siege Flint not only maintained the defence under circumstances well nigh as desperate as those under which Clive had laboured at Arcot, but even raised a small body of horse for operations without the fort. While want and imperfect intelligence hindered the movements of the Commander-in-Chief, he not only amply provisioned his own garrison, but also furnished the army with supplies and reliable information regarding the movements and numbers of the enemy. At an early stage of the siege a serious danger had threatened Lieutenant Flint. Contrary to his desire, the wives and families of the native troops composing the garrison had been allowed to live within the town. Apprised of this fact, Hyder collected the whole number, and sent them forward *en masse* towards the fort walls. A soldier bearing a flag of truce preceded the crowd, who advanced wailing and imploring the garrison to deliver up the fortress as the only means of preserving them from mutilation and dishonour. Besides Flint himself there was but one other European in the fort. Almost every man in the garrison had a wife and children or other relatives in the advancing throng, but regardless of their expostulations, Flint pointed a gun at the bearer of the flag of truce and brought him to the ground. A few shots fired high over the heads of the crowd soon silenced their clamour and made them retreat precipitately.

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Flint's defence of Wandiwash, 1780–81.

By January 16th access to the fort ditch had been obtained by means of galleries, and materials for filling it up were in readiness. Matters appeared to be approaching a crisis, and eager eyes daily looked out for assistance from Coote's army, which was known to be about to take the field. On the night of the 17th the sound of a distant cannonade was heard, and the morning light revealed a large force in the distance, clothed in British uniform, and carrying British colours. The enemy's troops engaged in the attack hastily decamped, and every thing seemed to prove that the long-expected succour had arrived. But Flint was sceptical, and observing that the fire of the approaching force was ill-directed, and from such a distance as to be useless, he determined to be cautious. The enemy's galleries, however, having been deserted, he sallied out with a chosen band and set fire to the works in the western attack. The result showed that his suspicions were well founded, for no sooner had the smoke of the conflagration announced to the enemy what had been done, than there poured in from all sides bodies of men who had been concealed in the neighbourhood. But good work had been done in the southern as well as the western attack, and without the loss of a single life Flint returned to the fort.

The only result of this feigned relief was to throw upon Hyder the labour of restoring his works, and before this was accomplished news arrived that Coote was advancing to Wandiwash. Despairing of success, the Mysore army abandoned the siege and retreated to Arcot on January 21st. Thus on the twenty-first anniversary of his former relief of the place, Coote was enabled a second time to raise its siege.

Admiration at the gallantry of Lieutenant Flint filled every mind, and the Commander-in-Chief, without hesitation, recommended that he should be promoted to the command of a company. The recommendation was approved at Madras, but the Court of Directors objected on the ground that such promotion would be "an inconvenient deviation from the established routine of the service, the rise by seniority." Lieutenant Flint had to content himself therefore with the somewhat barren satisfaction of having earned the approval and applause of his commander.

Battle of Porto Novo, 1781.

Soon after the raising of the siege of Wandiwash, operations against Vellore were also suspended and converted into a blockade, the greater portion of the troops engaged before the place being called off with the view of drawing Coote into a general action against superior numbers. The challenge was for some time declined, but in July a battle took place near Cuddalore, in which Hyder, considerably to his own surprise, was completely defeated. Some days previously the siege of Wandiwash had

been resumed by Tippoo, who surrounded it with a complete line of circumvallation. Batteries were already in position when a message was received from Hyder, announcing his defeat and directing Tippoo to attempt the fort at once by escalade, and then to hasten off to intercept the advance of a British contingent arriving by land from Bengal.

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Battle of Porto Novo, 1781.

Lieutenant Flint received information that the assault was to be made upon the night of July 16th. He was, therefore, fully prepared to oppose it, and opened a deadly fire of grape upon the enemy as soon as the sound of their approach was heard. A tumultuous noise followed the discharge, and gradually dwindled into silence. Other attempts were made on the same night, as well as on the following day, but all equally failed, and the demoralized condition of the army became so alarming that Tippoo struck his camp and marched to cut off the Bengal detachment. He, however, missed it by advancing along a route which it did not take, and had therefore the further disappointment of learning that a conjunction with Coote had been successfully effected.

Coote had earnestly hoped that this welcome addition to his army would have been accompanied by an almost more welcome addition of draught cattle, but he was disappointed, and it still appeared almost impossible to achieve the relief of Vellore or to undertake the siege of Arcot, the two great objects now before him. By dint of the utmost exertions an advance was made to Tiruppác'chúr, which was taken. Hyder retired to Pullalúr, where he had annihilated the force under Colonel Baillie, his design being to bring on an engagement on the eleventh day of Ramzán, a day which had proved so auspicious for him in the previous year. It corresponded in this year with the 31st of August, but the battle took place four days earlier, and a dubious victory was gained by the English.

Coote continued pressed for want of means of transit, and consequently of provisions. Reports were, however, received that plenty reigned in the regions belonging to the Chittoor poligars and the zemindars of Kárvetnagar, Kálahasti and Venkatagiri. The followers of the two former zemindars had joined the invaders, while the lancers of Venkatagiri served with the British army; but as Hyder's prospects of success grew more doubtful, his local allies considered it judicious to send assurances to the English camp that their adherence to the enemy had been forced upon them by their defenceless position, which was probably true. All held out assurances of assistance should the British army move into their territories. Sir Eyre Coote accordingly marched to Tiruttani, in the Kárvetnagar zemindári, and reduced the small fort of Pólúr in that neighbourhood, but the numerous foraging

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parties which ranged over the country met with but indifferent success. Coote's perplexity was increased by a pressing demand for relief from Colonel Lang, commanding at Vellore, who assured the general that a surrender was inevitable unless supplies could be thrown into the fort at an early date. Almost at the same time news arrived that Hyder was at Sholinghur, strengthening a position to obstruct any attempted advance towards Vellore.

Battle of Sholinghur, 1781.

The resolution of Sir Eyre Coote to bring on a general battle was soon formed, and on September 26th the army marched seven miles in the direction of the enemy, having left a small garrison in Pólúr with the heavy guns and unnecessary equipage. On the following night torrents of rain fell and rendered it next to impossible to move the tents. Hyder, aware of this difficulty, concluded that Coote would make no movement on the 27th, and the draught cattle of the army were therefore permitted to stray to a distance in search of pasture, while many of his troops dispersed to bring in supplies.

Early in the morning of the 27th Coote had ridden out to examine the country, and unexpectedly came upon an advanced portion of the enemy established upon a long ledge of rocks. A brigade was at once called up, and the enemy dislodged. On mounting the ridge lately occupied by them, Hyder's camp was clearly visible at a distance of about three miles to the south. The whole army was got into motion with the least practicable delay, and moved into position preparatory to an attack upon the Mysore camp.

"The country," writes Wilkes, "was comparatively open, "but ridges and groups of rocks, irregularly scattered over the "plain, and emerging to unequal heights, admitted of each party "availing itself of the advantages of ground. Hyder's main force "was judiciously drawn up behind the crest of a long ridge, not "rocky, its front covered with swampy rice fields, while his guns "were placed on the summit of this ridge, or on commanding posi-"tions among the more advanced groups of rocks. Exclusive of "the advanced corps in position, several detached bodies, exceed-"ing in numerical strength the whole of the English army, were "seen in motion towards each flank, and large masses of cavalry "were collected on various points, evidently prepared to charge on "an appointed signal. In fact the whole movement had operated "as a surprise upon Hyder." It is clear that he despaired of success from the very first. The best he hoped for was to save his guns, and to effect this object he resolved to sacrifice his cavalry. The advance of the English over the broken ground naturally destroyed at times the continuity of their line, and, seizing one of these opportunities, two large squadrons of horse

charged at the gaps which appeard in the British ranks. Both were met, as they advanced, with volleys of grape from Coote's artillery, and when the English lines were reached, a destructive cross fire of musketry was poured upon the devoted squadrons from the troops who had in defiling naturally fallen back at an angle to the main line, thus affording an excellent protection to the attacked flanks. One of the two charges was directly repelled, and rode back in confusion, but the other dashed through the ranks, pursued by volleys from the rear rank, which had faced about for the purpose.

Battle of Sholinghur, 1781.

Though these charges failed of success, they afforded time for Hyder to have his guns limbered up and removed. The whole Mysore army was soon in rapid retreat, leaving but one gun for the English to capture. Coote's loss in the battle did not exceed one hundred killed and wounded, while on the side of the enemy it was calculated that upwards of five thousand must have fallen.

The distress of Vellore was daily becoming more critical, and though the zemindars of Kálahasti and Kárvetnagar had, after Hyder's defeat at Sholinghur, deserted his cause and indulged in profuse promises of assistance, Coote found it impossible to obtain within their territories more than a scanty subsistence from day to day. It was rumoured, however, that large convoys of grain were passing at intervals down the Kallúr ghát to the Mysore army, and, on the chance of intercepting one of these, a detachment was sent on some distance to the west, under the command of Colonel Owen. This officer was attacked among the rocky hills south-east of Chittoor by nearly the whole of the Mysore army, commanded by Hyder in person, but was able, with the loss of all his baggage, to extricate himself from the dangerous position in which he had been surprised. Coote soon joined him, and by the beginning of November, a small surplus of grain was collected from among the Chittoor pálaiyams, and on the 3rd Coote was enabled to provision Vellore for six weeks.

Siege of Vellore, 1780-81.

The operations against this fort, which was defended by Colonel Ross Lang, had continued almost without intermission since the commencement of the campaign, when a large detachment had been sent against the place under one Mír Sahib, and batteries were erected. The fort is situated upon a plain, and is overlooked, at no great distance, by some hills of considerable elevation, from which ordinary artillery might, with comparative ease, command and destroy the whole of the interior of the fort. This disadvantage had been partly remedied by the fortification of three eminences which command the fort, and the possession of one at least of these was therefore almost essential to success. Vigorous operations against the principal drúg, now known as

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Siege of Vellore, 1780-81.

'Sayers' Hill,' were begun by the Mysore army under the direction of experienced French officers. Lieutenant Champness was charged with the defence with Lieutenant Parr as his second in command. The latter officer had, at the outbreak of the war, been deputed to take charge of the fort of Carnaticghar, in the Pólúr taluk, and had travelled thither, disguised as a native, to demand admission. This the killadár refused, and soon after the Mysore troops were admitted, and Lieutenant Parr was only just in time to escape capture and imprisonment. Half famished, and with bleeding feet, he with difficulty made his way back to Vellore, and was there entrusted with the superintendence of the engineering works in the defence of the drúg.

For five weeks the attack continued without intermission, and a large portion of the wall on one face had been completely destroyed, while approaches had been carried over the surface of the hill to within twenty yards of the breaches. Retrenchments had however been thrown up with the utmost industry and skill, and when the assault took place on January 17th, 1781, it was repelled with great slaughter. A second and a third attempt with ladders were equally unsuccessful, owing to the gallantry of Lieutenant Parr. The faulty construction of the drúg permitted of no flanking fire from its guns, so that a considerable body of the enemy was enabled to remain with impunity at the foot of the retrenchment. Lieutenant Parr, perceiving the danger which thus threatened the place, had the daring to descend by the ladders placed by the enemy against the retrenchment, and speedily expelled the surprised assailants. A few nights later a sortie from the petta town still further relieved the garrison on the hill, by attacking the enemy's works, spiking his guns, and damaging his approaches.

As at Arcot, the garrison of Vellore had to contend against the treachery of the nabob's own servants. A treasonable letter from Muhammad Akbar, the amildar of the place, addressed to Hyder was intercepted, and the traitor placed in irons. His post was conferred upon Muhammad Murád, a distinguished resident of the town, who at his own expense had raised a considerable body of irregular horse, with which he harassed the enemy and brought provisions into the fort.

Sir Eyre Coote's advance from Madras about this time led Hyder to withdraw most of his troops from Vellore, and the siege was from that time converted into a blockade. The scarcity of provisions became so great that grain sold at only two seers for a rupee at a time when money was far less plentiful than at present. Scanty supplies were brought in from the Chittoor poligars by Muhammad Murád and his horsemen. Redoubts were also erected

and mounted with guns in the neighbourhood of the paddy lands near the fort, and the ryots encouraged to cultivate.

Siege of Vellore, 1780-81.

During the blockade Colonel Lang resolved to create a diversion by attacking the hill fort of Kailásadrúg, situated some six miles from Vellore. The petta town was carried by a night attack, and the hill being ascended, siege was laid to the drúg. At daybreak however the enemy received considerable reinforcements from Virinchipuram, and Colonel Lang sustained an utter defeat. His party was pursued down the hill in confusion, losing 30 men killed and 40 wounded in the retreat.

The enemy now made the blockade still more complete, and intimidated the people of the neighbourhood by cutting off the noses of all such as were seized in the act of carrying provisions to the garrison, and driving them thus mutilated into the famine stricken town.

After provisioning Vellore, on November 3rd, Coote advanced to Chittoor and reduced its little fort, deemed important as it was reported to be a depôt for provisions. It capitulated on November 11th after a defence of four days, but the intelligence regarding its importance as a depôt was found to be false. The only consequence of its capture was that the general still further weakened his army by leaving a battalion in garrison, which was eventually sacrificed on the retirement of the army. The garrison left at Pólúr had also been forced to evacuate that fort, and on November 13th news arrived of a reverse at Pallipat, near Shólinghur, where another battalion, in charge of sick and wounded, was driven, it was suspected by the treachery of the Kárvetnagar zemindar, to retire into the jungle with the loss of its cannon and stores of grain.

As the rains were daily expected, it was now high time to return into cantonments near Madras. The retirement of the army had indeed already been deferred too long, and the monsoon burst upon it almost before the march began. Large numbers of troops and camp-followers, besides valuable cattle, perished from the inclemency of the season, and the health of the Commander-in-Chief himself broke down, so that he was constrained on arriving at the presidency to apply to be relieved from his command.

Assumption of the Carnatic.

During the campaigns of these two years not the slightest assistance had been rendered to the English by Muhammad Ali. Not a load of grain had been supplied to the army, and not a single soldier in his pay had served in the English camp. His officers had systematically betrayed, or attempted to betray, his forts to the enemy. One of his renters had endeavoured to sell Vellore, and his own brother handed over to Hyder the important stronghold of Chendragiri without adequate reason. Sir Eyre

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Assumption of the Carnatic.

Coote had been loud in his complaints at "the duplicity and iniquity of the Nabob, Muhammad Ali's Government." He had, he said, not only Hyder, but the whole Carnatic, to contend with, and strongly urged the necessity of assuming the management of the country during the war. The advisability of this measure was distinctly recognized by Government, and the nabob, perceiving the course matters were taking, making a virtue of necessity, agreed on December 2nd, 1781, to resign the revenues of the Carnatic for five years, on condition of receiving one-fifth for himself and his creditors. A board of management was appointed, which administered the affairs of the districts with such success that their revenues greatly exceeded those of any previous year, and Muhammad Ali found himself enjoying an income larger than he had ever before derived from his territories.

Operations in 1782.

Though greatly enfeebled in health and much disheartened at the wretched equipment of his army, Sir Eyre Coote yielded to the urgent solicitations of the Madras Government to withdraw his resignation, and on January 2nd, 1782, once again joined the army. Three days later, while camped near Tiruppác'chúr, he was discovered senseless in his tent from an attack of apoplexy. His valuable life was, however, spared, and on the next day he was so far recovered as to be able to accompany his troops in a palanquin. The march was to Vellore, which was again in extremity. On the 9th the army prepared to cross the dry bed of the Ponné river, some two miles from its confluence with the Pálár, when the enemy appeared and made a demonstration of opposing the passage. The caution and skill exhibited by Coote was, however, such that Hyder desisted from the attempt. On the 10th two strong columns of the enemy again appeared, and opened a distant cannonade upon the army as it advanced across some wet paddy fields. Hyder was, however, powerless to check Coote's progress. On the 11th the convoy arrived before Vellore, and three months' provisions were passed into the fort. Colonel Lang joined Coote's army, and the defence of Vellore devolved upon Captain John Cuppage. On the 13th the army retraced its steps, and was once more opposed near the swampy ground where the attack of the 10th had taken place. The heavy ground was passed with little loss, and a determined attack was then directed against Hyder's forces, which were driven back and pursued till nightfall. The march to Tiruppác'chúr was diversified by a few empty demonstrations made by the enemy, but nothing noteworthy occurred.

It is remarkable that during the whole of 1781, although Coote was within easy marching distance of Chendragiri, he never advanced so far north as that place. It was still in possession of Abdul Wahâb, the nabob's brother, but Coote appears to have

been aware neither of its importance nor of the relationship of its killadár to Muhammad Ali. There is strong reason to suspect that Abdul Waháb had, before the war, entered into treasonable correspondence with the Mysore court, for letters were sent from Chittoor to Seringapatam before the invasion, and a vakil from the killadár was seen in Hyder's camp soon after he entered the Carnatic. Hyder appeared at that time to be dissatisfied with the conduct of Abdul Waháb, for a threatening message was returned through the vakil, which induced his master to abandon Chittoor and strengthen himself at Chendragiri. In January 1782 Hyder was able to undertake the reduction of this fort, and Abdul Waháb submitted without a struggle, though he had ample means for maintaining the defence. Hyder agreed to permit him to retire with his family and goods to Madras, but as soon as the fort was given up, alleging some previous breach of faith on the killadár's part, treacherously sent the whole of his family prisoners to Seringapatam, retaining his two youthful daughters at Arcot.

Operations in 1782.

During the remainder of 1782 the scene of war was removed to the west and south. Though the English suffered a notable defeat at Tanjore, Hyder began to be very far from satisfied with the aspect of affairs, and determined to concentrate his forces, and move to the Western Coast. But previous to his departure he directed the destruction of most of the minor posts in the Coromandel which remained in his possession, and caused the defences of Arcot to be undermined. A few days before the mines were ready to be sprung his despondency was removed by the arrival of a French armament at Pondicherry. He hurried off to meet it, and the united forces, in the early part of 1782, captured Cuddalore and Perumukkal.

Sir Eyre Coote was deeply chagrined at the loss of these two places, and pronounced the condition of affairs to be "not only embarrassing, but desperate." He determined to try the result of a general battle, and for that purpose advanced to Wandiwash, where Flint had for some days been surrounded by the combined armies of the allies. At the approach of Coote the enemy retreated to Pondicherry, whither the English army followed them; but the Commander-in-Chief, being unwilling to risk a battle against superior numbers at a distance from his head-quarters, resolved to make some movement which should draw the enemy away from their ground. He, therefore, marched to Arni, which had been constituted the chief depôt of the Mysore army in the Carnatic.

Lieutenant Flint had for some time been in secret treaty with the killadár, who had consented to allow the fort to be taken by surprise. Implicit reliance was not placed upon the promise, but

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Coote was of opinion that, even should his assurances prove delusive, an attack upon Hyder's depôt would afford an opportunity of engaging the enemy upon more equal terms. On June 1st the army moved to within a few miles of Arni. Tippoo had been detached by his father with a strong reinforcement, and was not far behind, for on the morning of the 2nd, as the English army renewed its advance, a distant cannonade was opened from various points upon its rear. The precise direction from which an attack might be expected could not be determined, and the troops were therefore engaged throughout the day in a series of fatiguing manœuvres, without further result than the capture of one gun and eleven tumbrils of ammunition. Coote eventually gained the camping ground he had in the morning proposed to occupy, but not before Hyder had dexterously detached a portion of his troops under Tippoo, who succeeded in effecting the removal of the treasure and stores from the fort. This achieved, the Mysore army retired.

During the 3rd Coote made arrangements as though to lay siege to the fort, in the hope that the killadár might fulfil his engagements; but the proximity of Hyder prevented treachery, and on the 4th Coote abandoned his object, advancing against the enemy, who invariably retreated. On the 8th a skilful ambuscade was planned by Hyder, by which the grand guard, under the command of a zealous but inexperienced young officer, was entrapped and surrounded, 166 men and two guns being captured.

Coote's repeated challenges to the enemy having been thus declined, he retired for a time to Wandiwash to refresh his troops, after which he withdrew to Madras, and was forced to resign his command in consequence of the state of his health. Major-General Stuart, the officer next in seniority, succeeded.

Death of Hyder Ali, 1782.

Hyder's health had also failed during this year, and on December 7th he died in camp at Narasingaráyanipet near Chittoor where a small monument marks the spot. His death was strictly concealed, and his body sent secretly to the tomb of his father at Kólár, while Tippoo was urged, by means of expresses, to join the army without delay. Rumours of Hyder's decease were, in spite of the attempt at concealment, widely spread, and the commandant at Vellore reported the fact as one to be relied upon as early as December 9th, only two days after the event occurred. General Stuart however persisted in refusing to credit the rumour, and added that even if it were true, "the army would be ready to move in proper time." No movement was however made for sixty days after Hyder's death. The golden opportunity for delivering a crushing blow while the Mysore army was in consternation, and before the heir apparent had returned, was thus lost,

Death of Hyder Ali, 1782.

and the campaign was in consequence continued for four months. When the army did move, it advanced with the utmost deliberation to Karunguli and Wandiwash, the fortifications of which places were destroyed under instructions from the presidency. Coote had been particularly anxious to preserve these forts, and even General Stuart, though at first acquiescing in the views of Government, subsequently expressed his regret at the precipitancy of the measure.

While in the neighbourhood of Wandiwash an attempt was made by the general to bring on a general action, but Tippoo declined the battle, and soon after, hearing of the alarming proceedings of the English on the Western Coast, withdrew from the Carnatic. Before leaving he demolished two sides of the fortifications of Arcot, and destroyed every other important post which he held in the country, with the exception of Arni, in which he left a garrison. General Stuart had had an excellent opportunity of securing Arcot. Arriving there on his march, he found the place abandoned by its garrison, but contented himself with sending word to Muhammad Murád at Vellore to come and take possession as killadár. As soon as the army advanced, and before Muhammad Murád could occupy the fort, one Sultan Jung, a ressaldar of the enemy, entered it with a large force. Muhammad Murád contented himself with employing the thousand recruits, whom he had enlisted, in reducing both the upper and lower forts of Sátghur.[9]

Death of Eyre Coote, 1783.

It was expected that the veteran Coote would return from Bengal in April 1783 and resume command of the Madras army. He arrived on the 24th, but the improvement which had been observable in his health during his sea voyage to Calcutta had been neutralized by the anxiety and exposure to which he had been subjected while returning, when the vessel in which he sailed had a narrow escape of being captured by some French ships of the line. He landed greatly reduced in strength and expired two days later.

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[9] At the close of the war this gallant officer was treated with neglect. A Bráhman was appointed to the amildári of Vellore, while the killadári of Sátghur, a post which Muhammad Murád richly deserved, was conferred on another. His claim on account of the expense of maintaining men was proposed to be satisfied by bills on Bengal, then at 75 per cent. discount. His only recompense was an inám of 50 kánis of land, obtained for him by General Coote, but this was soon after resumed by the nabob. His son, after the fall of Seringapatam, was appointed tutor to the young princes at Vellore. Here he intercepted a treasonable letter addressed to one of the princes, which he handed over to the Commandant, Colonel Dallas. The only fruit of his fidelity was the loss of his appointment.

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Death of Eyre Coote, 1783.

General Stuart was thus confirmed in his command, and conducted some most unsatisfactory operations against the French near Cuddalore. Fortunately the war in Europe was concluded by a peace between the two nations, and General Stuart, being recalled to Madras, was placed under arrest for his incapacity and contempt of the authority of the presidency, and eventually sent back to England.

End of the war, 1783.

Details are unnecessary of the war on the Western Coast, whither Tippoo had betaken himself, or of the expedition of Colonel Fullerton into the heart of Mysore. Just as this officer was in a position to undertake the reduction of the Mysore capital, he was recalled, and English plenipotentiaries were sent to Mangalore for the purpose of negotiating a peace. After treating them with every indignity, Tippoo executed a treaty on the basis of a mutual restitution of conquests and prisoners. In this district Ambúr and Sátghur were restored, Arni having already been abandoned by its Mysorean garrison.

The Government of the Carnatic.

It has already been stated that in December 1781 the nabob had assigned his territories to the English Government in consideration of the fact that all the expenses of the defence of the country has fallen upon them. The engagement had hardly been executed when, acting under the influence of his unprincipled creditors, he made every effort to defeat it. Unfortunate misunderstandings existed at the time between the Supreme Government and that of Madras. Taking advantage of these the nabob succeeded, by a series of misrepresentations, in obtaining an order from Calcutta that the assignment should be cancelled. The order was passed in January 1783, and almost together with it arrived the sanction of the Court of Directors to the arrangement of 1781. The Madras Government, therefore, hesitated before carrying out the orders of the Governor-General, and the Carnatic continued under the Board of Management. Meanwhile the authority of the Court of Directors had been superseded in England by the appointment of the new Board of Control, who peremptorily ordered the restoration of the Carnatic, a step which they considered necessary in order to "give to all the powers of India a strong proof of the national faith." It was directed that the nabob should instead pay twelve lakhs a year for the gradual liquidation of his debt to the Company and to his private creditors. A preliminary treaty was, in accordance with these instructions, concluded in 1785. By this the nabob gave territorial security for the payment of the twelve lakhs to liquidate his debts, and for four lakhs in addition to meet current charges. But the expenses of the peace establishment amounted to twenty-one lakhs, and it was subsequently agreed that this amount should be paid

The Government of the Carnatic.

by the Company, the Nabob, and the Rájá of Tanjore, in proportion to their respective revenues. A subsidiary treaty was accordingly executed, by which the nabob agreed to pay ten and a half lakhs as his proportion, and in the event of failure certain districts were to be assigned. The contribution towards the extinction of his debt was reduced by a lakh and a half, and the nabob resigned all political relations with other Native states. In case of war the contracting parties further agreed each to contribute four-fifths of their revenues towards its expenses. This treaty was executed in 1787, and within three years a war broke out—the third with Mysore.

Third Mysore war, 1790.

The only result of the treaty of Mangalore had been to increase the arrogance of Tippoo. It was not long before he exhibited unmistakable signs of contemplating a fresh war, and announced to his late allies, the French, that he was only seeking an opportunity of exterminating the English, and annihilating the powers of the Nizam and the Mahráttas.

The opportunity sought for was soon found. In 1789 the Rájá of Travancore negotiated with the Dutch for the purchase of two of their settlements in order to strengthen himself against Tippoo. The latter at once objected on the ground that the settlements in question belonged to Cochin, which was subject to him, and he advanced to attack the lines of Travancore.

Lord Cornwallis was at this time Governor-General, and he succeeded in making, in 1790, a tripartite alliance with the Mahráttas and the Nizam against Mysore. As the scene of the war did not lie within this district, no details of the operations need be given. It opened unfavourably for the English, and, in 1791, Lord Cornwallis was constrained to take command of the army in person. The troops assembled at Vellore, and a feint was made of ascending into Mysore by the Náyakkanéri ghát. Tippoo, being misled by the movements of the army, prepared to oppose the advance in the neighbourhood of this pass, but Lord Cornwallis at the last moment diverted his line of march, and, passing through the easier pass of Mogili, camped on February 19th upon the plateau within ninety miles of Bangalore.

First capture of Seringapatam, 1792.

Failure of supplies rendered the campaign of 1791 less decisive than could have been wished, but in the following year the army advanced once more with every arrangement complete, and Seringapatam fell. Tippoo thus completely overpowered, consented to pay a large sum of money and to relinquish one-half of his territory, which, according to the terms of the tripartite treaty, was divided between the English, the Nizam and the Mahráttas. The English share consisted of the province of Dindigul, a portion of the present Presidency of Bombay and the Báramahál. The

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only portion of the territory thus ceded which is included in the North Arcot district is the zemindári of Kangundi, which was portion of the Báramahál.

Fresh arrangements in the Carnatic, 1792.

On the outbreak of the war it had been found impossible to realize anything from the revenues of the Carnatic, four-fifths of which should, according to the arrangement of 1787, have been contributed by the nabob. It was therefore resolved to assume the direct management of the country during the war, and at its conclusion the nabob expressed a desire that the treaty of 1787 should be modified. The Madras Government were equally anxious for some new arrangement, as the existing one had been found to be open to many objections. A fresh agreement was therefore made, and a treaty signed on July 12th, 1792, by which the British Government engaged to keep up a military establishment, towards the maintenance of which the nabob was to pay nine lakhs annually; while in the event of war it was stipulated that the whole country should be assumed, one-fifth of its revenues being paid to the nabob. It was further agreed that the Company should collect the peshkash of the chief poligars in the Carnatic, and should place the amount realized to the credit of the nabob. Thus the zemindáris of Kálahasti and Kárvetnagar, as well as the jágír of Arni, came under British management almost at the same time that Kangundi was acquired. The peshkash due by these estates was as follows:—

	RS.	A.	P.
Kálahasti	42,712	8	0
Kárvetnagar	1,14,051	0	0
Arni	10,052	8	0

The nabob consented that in the event of his failing to pay, in monthly instalments, the contribution due over and above the poligars' peshkash, certain districts should be assigned, among which was included the Northern division of Arcot, comprising only the taluks north of the Pálár. The revenue of the division was estimated at only Rs. 5,92,914.

Fourth Mysore war, 1799.

The loss of one-half of his territories had not sufficed to humble the pride of Tippoo. He still retained ample means for improving his position, and soon brought his army into the highest state of efficiency by employing French officers to discipline and command it. His actions left no doubt that he entertained intentions of undertaking a fresh war, with the object of destroying the British power in India. Lord Wellesley, then Governor-General, resolved to anticipate Tippoo's designs, and announced the necessity of still further diminishing his power as "indispensable to the safety of the English Government."

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Fourth Mysore war, 1799.

By the treaty executed on the division of the Ceded Districts in 1792, the Nizam and the Péshwa had bound themselves to furnish troops should a fresh war be provoked by their common enemy. They were now called upon to fulfil their obligations, but while the Nizam readily acceded to the demand, the Mahráttas refused to co-operate, and subsequently assumed a threatening attitude. The Madras army was however directed to take the field, and General Harris was placed in command. Tippoo was filled with dismay at the unexpected promptitude evinced by the English. His troops were continuously defeated, and Seringapatam was again invested. On May 4th, 1799, an assault was made upon its fortifications, which were successfully carried. Tippoo's body was discovered among the slain, and the young princes were taken prisoners.

Defeat and death of Tippoo, 1799.

Lord Wellesley's object was not to annihilate the Mysore state, but merely to reduce its power within such limits as should secure the safety of our empire. As the family of Tippoo had forfeited all claim to consideration, and were moreover usurpers, it was resolved to restore a portion of the Mysore territory to the ancient line of rájás, and a child of five years was drawn from the poverty and obscurity to which his family had been consigned, to occupy the throne. The districts assumed were shared between the Nizam and the Company, after a portion had been offered to the Péshwa on certain conditions, which he declined. Of the Company's acquisitions the zemindári of Punganúr and the taluk of Venkatagirikóta (now Palmanér) lie within this district. The former was valued at Rs. 52,500 and the latter at Rs. 21,000 per annum.

New arrangements with the Nabob of the Carnatic.

In 1795 Muhammad Ali had died and his son Umdat-ul-Umara had succeeded. An attempt was made to induce this prince to enter into some arrangement in supersession of that of 1792, the results of which had been found to act most injuriously upon the country. The subsidy due to the Company had indeed been paid with punctuality, but the demand had only been met by raising loans at exorbitant interest, and the nabob was now in the most embarrassed circumstances. He had, contrary to the terms of the treaty of 1792, assigned to his creditors the revenues of large portions of the Carnatic, and these unprincipled persons ground down the ryots, and forced from them higher assessments than they could afford to pay. Under such a system the prosperity of the provinces was being rapidly undermined, and the Government earnestly desired to remedy the evil. The most liberal offers made to Umdat-ul-Umara on his accession were rejected by him at the instigation of the harpies into whose hands he had fallen, and matters continued to pass from bad to worse.

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New arrangements with the Nabob of the Carnatic.

When war was declared in 1799 the Court of Directors had directed that the management of the Carnatic should be assumed according to the terms of the treaty of 1792, but Lord Wellesley, unwilling to carry out these instructions, accepted the nabob's most solemn assurances that he would contribute three crores of rupees, and left him in possession of the country.

The promise was infamously broken, and the nabob's failure well nigh involved the British cause in disaster. The indignation of Government at the conduct of Umdat-ul-Umara was naturally great, and it was increased when, at the conclusion of the campaign, papers were discovered among the state records at Seringapatam which were considered to prove beyond all doubt that the nabob, as well as his father, had for years been carrying on a clandestine intrigue with the Government of Mysore. Such treachery absolved the Government from all obligations resulting from previous treaties, and it was determined, for the benefit of the country, as well as for the security of the Company, finally to assume the Carnatic.

Before the resolution of Government had been communicated to Umdat-ul-Umara, he was lying upon his death-bed, and the announcement was deferred until after his death. He had nominated his reputed son Ali Hussain to be his successor, and to this prince it was explained that his claims would be recognized by the Company, as a matter of favour, on condition that he should resign the entire civil and military authority in the country. Ali Hussain refused to accede to these terms, and Government turned to Azím-ul-Umara, brother of the deceased nabob, who was considered to possess claims to succeed superior to those of his reputed nephew. Azím-ul-Umara accepted the conditions willingly, and an engagement was made with him on July 31st, 1801, by which he handed over the whole of his authority over the Carnatic, and accepted a stipendiary allowance of one-fifth of its estimated revenue for the support of himself and his family.

Final assumption of the Carnatic by the British.

This is the last step by which the various portions of the territory now composing the district of North Arcot were acquired.

THE ENGLISH PERIOD.

Troubles with the poligars.

For a short time after the assumption of supreme authority by the Company, the tranquillity of the district remained unbroken. It was first disturbed by the turbulent conduct of a few of the poligars holding estates in the Chittoor and Chendragiri taluks, whose bad example was soon followed by others, until matters had assumed so serious an aspect that military aid had to be summoned.

Scattered over the district were the estates of zemindars and poligars, petty chiefs, who, by the weakness of previous governments, had been enabled to assume a position almost of

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independence. They lived surrounded by large numbers of military retainers, supposed to be employed in the discharge of police duties, but instead of acting as the guardians of property, they too often proved the heads of a licensed banditti, with enormous powers of oppression and plunder.

Mr. Stratton, the first Collector of North Arcot, had early been called upon to report upon the military resources of the zemindáris under his charge, and his representations had led the Madras Government to insist on the zemindári peons being disbanded.

It would have been well had this wise measure been extended at the same time to the less powerful poligars; for these petty rulers, being permitted to remain with undiminished resources, soon made attempts to return to the irregular line of conduct they had been allowed to pursue with impunity under the previous Muhammadan Governments.

There were ten poligars in North Arcot paying tribute to Government, viz., Bangári, Tumba, Náraganti, Pullúr, Gudipáti, Mogarála, Pákála, Yedaragunta, Pulichérla and Kallúr. They appear to have been originally appointed by the Vijayanagar rájás, about the close of the fifteenth century, to superintend the police arrangements of the country. In consideration of the services thus rendered, a few villages were granted to them at a favourable rent, and they were authorised to collect, for the support of the peons whom they maintained, fees (called kávali) from all villages within their ranges. As long as the authority of the Vijayanagar kingdom continued unimpaired, the object of their institution was fairly fulfilled, but after the battle of Talikóta, the general condition of anarchy which prevailed in these parts tempted these large kávalgárs to aim at independence. Assuming the title of poligar, they seized upon the whole of the villages within their respective ranges, and discontinued the payment of quit-rent on those they had hitherto held as inám.

For upwards of a century they continued in a state of independence and lawlessness, but about the close of the seventeenth century the Muhammadan Government, which had now begun to establish its authority in the land, resolved to reduce them to submission. A small army was sent against them under the command of one Ghulám Muhammad, who, after a somewhat doubtful struggle extending over some years, seized the persons of the Bangári and Mogarála poligars, whom he put to a cruel and ignominious death. The others, intimidated by this example, speedily submitted, and for the first time paid tribute to the Government to which they were subordinate.

During the administration of Dost Ali, however, the poligars ventured to withhold the full payment of their peshkash, and

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when the disturbances began, which followed the return of Chanda Sahib from his captivity at Sattára, they threw aside all pretensions to subordination, and once more asserting their independence, declined to pay any tribute whatever.

When the authority of Muhammad Ali was at length firmly established he resolved to bring back his refractory tributaries to submission, but instead of undertaking the duty himself, he committed it to his brother Abdul Wahháb, to whom he granted the districts of Chittoor and Chendragiri in jágír, with the right to receive the poligars' peshkash.

Abdul Wahháb appears to have had small success in enforcing the necessity of obedience upon his troublesome subjects, and only collected such inadequate sums as the poligars chose occasionally to pay. When he was dispossessed of Chendragiri and made a prisoner by Hyder, they relapsed once more into their irregular ways.

In this lawless condition were the Chittoor and Chendragiri pálaiyams when the Carnatic was ceded in 1801. For a short time after the cession, the poligars had the prudence to restrain their predatory inclinations within comparatively moderate bounds, but they became dissatisfied and inclined to rebellion when Mr. Stratton proceeded to raise their tributes to sums which he considered more adequate to their resources. With the sanction of Government he assumed the management of the police throughout his districts, and deprived the poligars of their right to collect kávali fees.

Such a curtailment of their importance and revenues was naturally distasteful to the poligars, who, with the exception of Gudipáti, positively declined to pay the enhanced peshkash, fell into arrears, and began to indulge in their old habits of plunder and rapine.

In June 1803 Mr. Stratton reported that the peons of the Náraganti poligar had attacked and plundered the village of Uttantángal. His inquiries disclosed the fact that he had acted under the orders of the poligar himself, who had shared in their plunder, and it further appeared that the same party had, before their raid upon this village, started for Chittoor, intending to loot the treasury. They were only prevented from carrying out these intentions by the accident of one of their party tripping and falling to the ground, a circumstance regarded as an omen of ill success. There was reason also in another case to suppose that the Tumba poligar had instigated an attack upon a certain Captain Nuttall, who was travelling through that pálaiyam; indeed most of the poligars had indulged in such lawless excesses, that Mr. Cockburn recommended, since all his arguments failed to move them, that prompt and decisive measures should be taken to bring them to reason. He urged the advisability of making a

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military demonstration, but troops at the time could not be spared, and the officer commanding the garrison in the fort of Chittoor considered his force too small to venture upon making any advance into the poligars' estates.

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The first step taken by Mr. Stratton to prove that he was in earnest in his warning to the defaulting tributaries was the arrest of the Náraganti poligar, whom he left in restraint when he was relieved of the charge of the district by his successor, Mr. Cockburn. Mr. Cockburn, trusting to the poligar's promise that he would discharge the arrears within twenty days, released him, but when, after this period had expired, a letter of remonstrance was despatched, the bearer of it found armed peons assembling from all quarters at the poligar's fort, who surrounded and threatened him, and insultingly bade him carry back the letter to him who sent it.

On hearing of this act of perfidy and show of resistance, the Government of Madras directed Mr. Cockburn at once to resume the whole of the lands and russooms (customary fees) of the refractory poligar, and on July 6th, 1804, ordered that a battalion should at once march to Chittoor to enforce the order. The resolution of Government was announced in a circular letter to all the poligars, except Gudipáti who still remained faithful, in the hope that the knowledge of the decisive measures decided upon would create an impression upon their minds.

The battalion arrived at Chittoor on July 17th under the command of Lieutenant-Colonel Darley. A company of pioneers accompanied it in order to carry out the instructions of Government regarding the destruction of all the fastnesses of the poligars, and the opening up of the country by the construction of roads. Mr. Cockburn at once despatched announcements to the refractory poligars that a military force had arrived to compel them to submission, but assured them of protection and safety should they at once attend him and make arrangements for discharging their arrears. None of them attended, but each sent a vakil. Bangári and Yedaragunta were keeping a fast; Pulichérla and Kallúr had taken physic; and each of the others had some like frivolous excuse for their absence. Their vakils were then called upon to execute engagements for their principals, but declared that they had no authority to do so, and returned bearing with them the conditions imposed by the Collector. The Mogarála poligar, who also administered the affairs of Pákála, as the poligar of that place was a minor and a relative of his, declared himself unable to pay his arrears within the limited period of eight days, and objected to the alternative of resigning a portion of the estates. He at the same time collected his

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followers, and, arming them, prepared to resist. On July 25th the battalion, leaving the Náraganti pálaiyam to be disposed of subsequently, marched to Pennamari, and prepared to invest the fort, which Colonel Darley intended to attack early next morning, but in the evening the poligar declared himself ready to resign two-thirds of each of the estates which he managed, and by thus throwing the commanding officer off his guard, escaped during the night with from 800 to 1,000 of his followers. The fortifications of the place were at once destroyed, and on the 28th the poligar, despairing of success, surrendered himself and his ward. He was sent in custody to Vellore, while the minor was detained in Chittoor. Both were soon afterwards forwarded to the fort of Chingleput.

On July 31st Mr. Cockburn desired Colonel Darley to take measures for the assumption of the pálaiyams of Kallúr, Pulicherla, Bangári, Yedaragunta, Pullúr and Tumba, as the proprietors of these estates had not acceded to the terms of settlement proposed to them. The detachment therefore proceeded northward into the Chendragiri taluk, and Kallúr and Pulicherla, on hearing of the approach of the battalion, fled into their jungles. The drúgs and barriers were destroyed, and possession taken of the estates. Proclamations were at the same time issued, inviting the chiefs to surrender, and promising personal safety and consideration in the event of their doing so.

The poligar of Pullúr had at first consented to relinquish in land an equivalent to the balance that he owed to Government, but he afterwards repudiated the agreement and peremptorily ordered those who were sent to settle the accounts to leave his pálaiyam. Colonel Darley's next step was, therefore, to march into his territories, where the poligar had assembled all his followers, and obtained a solemn promise from them that they would stand by him to the end, a promise which they faithfully fulfilled, for they opened fire upon the sepoys as soon as they appeared, and defended the first barrier with the utmost obstinacy, until in the evening it was carried by assault. The poligar made good his escape to the top of the hill, which is of great natural strength, and descending in the darkness by a secret pathway unknown to the besiegers, escaped and joined his friends Bangári, Yedaragunta, Tumba, and Náraganti, who had sent men to assist him in his unsuccessful struggle. As the fortifications of Pullúr, the strongest in the pálaiyams, had been so speedily reduced, the hopes of the rebels now diminished, and they made little further opposition to the battalion.

After the works at Pullúr had been demolished, those of Tumba and Bangári, which were found deserted, were treated in a similar fashion. The Bangári poligar had at the first appearance of open

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rebellion retired to the Cuddapah district. He was an infirm old man, eighty years of age, who seems to have been well disposed towards the Government, and to have entirely disapproved of the conduct of his eldest son, the Yedaragunta poligar, who, contrary to his father's advice, had joined the rebels.

With the exception of an engagement near Nágapatla on September 19th, in which the poligars of Kallúr, Pulichérla and Pullúr were easily defeated, no further resistance was met with. On September 24th an attempt was made to capture Chandúrkonda, a hill very difficult of access, but Captain Armstrong, who led the detachment, was misled by his guides, and all the poligárs' men succeeded in escaping.

The insurgents had by this time been entirely driven from their own country, and were wandering about in the densest parts of the jungles, where they were safe from pursuit; but a large number of their followers, acting independently, scoured the country in bands, pillaged villages and seized all the passes leading to Tirupati, intending to plunder the pilgrims travelling towards the temple. Some of the Mogarála and Pákála men, who were the most active in these operations, succeeded in surprising a party of sepoys and Government peons stationed at Mogarála, five of whom they killed, and after disarming the whole body, dismissed them. So daring did the conduct of these men at length become, that it was found necessary to protect both lower and upper Tirupati with a strong force of sepoys, as it was rumoured that the rebels were contemplating an attack on the temple itself. A body of 150 peons was raised to patrol the roads leading to Tirupati, and 500 more enlisted and distributed among the villages in the unsettled parts of the taluks.

On September 22nd the Government, hoping to settle the disturbances by peaceful measures, appointed a commission consisting of three members, Messrs. Webb, Hurdis and Stratton, the last having been Mr. Cockburn's predecessor, to settle the affairs of the pálaiyams. They reached Chittoor on October 6th, and at once directed that all measures which might affect the poligars should be suspended. The troops were therefore withdrawn from the pálaiyams, where indeed they had been able to effect but little, having been constantly misled by false rumours regarding the whereabouts of the banditti. An attempt to pursue them into the thick jungles of Bangári only resulted in the rebels making a raid upon several villages on the plains, which they laid waste and pillaged. The pioneers, however, had done good work. After destroying various barriers and forts, they constructed a road, 50 feet wide, from Náraganti to Chittoor, and continued it as far as Vellore. Another road was also opened

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between Paradarámi and Venkatagiri, the chief towns respectively of the Yedaragunta and Bangári poligars.

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Before the arrival of the special commissioners some of the rebel poligars had shown signs of an inclination to submit. Pulicherla himself wrote to Colonel Darley offering to surrender on that officer's letter of safe conduct, and a vakil of the Punganúr zemindar brought similar messages from Kallúr.

One of the first acts of Mr. Webb and his coadjutors was to set the two captives at Chingleput at liberty, a measure which encouraged several of the others to come into Chittoor. The faithful poligar of Gudipáti was the first to attend the commissioners, and he was followed by Náraganti, Pullúr, Yedaragunta (on behalf of himself and his aged father), Kallúr, and lastly, on October 24th, by Tumba. They were called upon to sign an agreement binding themselves to the following terms: that they should disband their peons (upwards of 5,000 attended them at Chittoor) within one month; should erect no new fortifications, but should destroy such as remained; should assist in opening up the jungles by constructing roads; should pay up their arrears in full by December 15th, or assign the whole of their pálaiyams to Government until the amounts due by them had been realized; should agree to a survey of their estates and the settlement of a peshkash of two-fifths of the value estimated by such survey; and should in future lead orderly lives and obey the orders of Government in all things. The poligars of Pákála, Mogarála and Tumba signed this agreement with little apparent hesitation, but Yedaragunta, when called upon to execute the document, offered frivolous excuses. The Kallúr poligar sent his previous excuse of illness; while Pullúr had the effrontery to reply to the commissioners' summons that he was busy hunting. Hardly had the commissioners time to recover from the surprise caused by these evasive messages, when they learned that Pákála and Mogarála had gone off with Kallúr and Pullúr, attended by a large number of armed peons, and that the chiefs of Tumba and Yedaragunta had quickly followed them. After waiting fruitlessly for two days hoping that the poligars would perceive the folly of such conduct, three companies of sepoys were called up from Nangamangalam, whither Colonel Darley had retired, and the commissioners reported to Madras that they now felt convinced of their inability to bring the rebels to a sense of their duty. As all attempts at conciliation had thus proved vain, Government deemed it expedient that active measures should once more be resorted to, and a detachment was accordingly ordered to assemble at Chittoor under the command of Lieutenant-Colonel Moneypenny. It consisted of upwards of 3,000 men, including artillery

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and cavalry: martial law was proclaimed, but before taking the field, Colonel Moneypenny issued a proclamation inviting the rebels to submit within seven days. This did not apply to Gudipáti and Náraganti, who had not joined the others in deserting the commissioners. In consideration of his last act of faithfulness, the Náraganti poligar was granted a free pardon for his misconduct, but his pálaiyam, together with all the others with the exception of Gudipáti, was directed to be resumed. The terms offered by Colonel Moneypenny were accepted by the poligars of Bangári and Tumba, but after the week had expired; the former, it was proved, had never received the proclamation, since his son, the poligar of Yedaragunta, had intercepted it, and Tumba pretended that he had really been prevented by illness, so that the submission of these two chiefs was accepted. The Kallúr and Pulicherla poligars surrendered to Colonel Munro in the Ceded Districts, but Pákála and Mogarála resolved to continue the contest to the bitter end. The detachment was, therefore, marched against the hill of Mogarála, where the rebels had taken up their position, and where they successfully resisted every attempt to dislodge them during the day; they were, however, so disheartened by the results of the attack, that they evacuated the place during the night and overran the country, eventually retreating beyond the Cuddapah frontier, and surrendering to Colonel Munro on receiving a promise of life and liberty.

Upon hearing of the certainty of an engagement at Mogarála, the Pullúr poligar started to the assistance of his friends there, but it is uncertain whether he succeeded in reaching the hill before it was evacuated. He, however, caused considerable trouble by aiding in the plunder of the country, and being closely pursued, followed the example of Mogarála and Pákála in surrendering to Colonel Munro.

The only rebel still at large was now the poligar of Yedaragunta, who had shown himself to be the most daring and desperate among the insurgents. He was joined by the dispossessed poligar of Cháragallu, in the Palmanér taluk, who for rebellion had been imprisoned by Colonel Read in the fort of Krishnagiri. In 1794 he succeeded in escaping from his confinement, and became a vagabond. Hearing of the disturbances in the neighbourhood of Chittoor, he hurried to join the rebels, and received command of a portion of the Yedaragunta peons, with whom he took possession of his ancient stronghold of Peddanaidi-drúg, and plundered several villages in the neighbourhood of Ambúr.

To assist in reducing this force a reinforcement marched from Mysore. These, together with Colonel Moneypenny's troops and upwards of 1,000 irregular peons enlisted for the purpose of penetrating the jungles, formed a formidable array. The rebels

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made two desperate attacks upon the Mysore detachment under Captain Little, but were defeated, and soon after the drúg was invested on all sides. Seeing that no hope remained, they disbanded their troops and escaped into the jungles, where, after some time, they were captured and hanged.

On February 8th, 1805, the Collector was able to report to Government that the Chittoor pálaiyams had at length been reduced to perfect quiet. Martial law was suspended, and the detachments were recalled; but Lieutenant-Colonel Darley still remained in the neighbourhood with a small force to preserve peace.

The Pákála, Mogarála, Pullúr and Yedaragunta pálaiyams were declared forfeited, and the three surviving chiefs ordered to reside in Madras. The others were granted an allowance of 18 per cent. upon the revenues of their estates until such time as Government should restore them upon permanent sanads.

The Vellore mutiny, 1806.

Within little more than a year after the pacification of the Chittoor pálaiyams the peace of the district was again disturbed by the Vellore mutiny.

After the fall of Seringapatam, Tippoo's twelve sons and six daughters had been removed to Vellore. The fort, from the strength of its walls and the voracity of the alligators, with which its capacious ditch was filled, had been deemed a suitable place for their confinement. Two of the sons were married, having their families residing with them, and the whole party, including servants, amounted to several hundred persons. The liberality of Government had supplied them with a suitable residence, the privacy of which was undisturbed save by the occasional visit of the officer commanding the garrison.

Vellore was at this time garrisoned by four companies of His Majesty's 69th Regiment (now the 2nd battalion of the Welsh Regiment), a few invalid artillerymen, six companies of the 1st battalion of the 1st Regiment, and the 2nd battalion of the 4th Regiment, of Native Infantry. While the number of the native troops was upwards of 1,500, the Europeans were only about 370 strong. The officers resided some in the cantonment, others in bungalows within the fort.

Early in 1806 it was generally known to the officers that a spirit of dissatisfaction prevailed among some at least of the native troops. Muhammadan fakirs had been observed wandering about the country in unusual numbers, and the sepoys had more than once shown signs of discontent. Sir John Craddock, recently appointed Commander-in-Chief of the Madras Army, had imprudently issued several new regulations calculated to offend the prejudices of the sepoys. Hindus were forbidden to appear on parade wearing earrings or bearing upon their foreheads the marks distinctive of their sect. Musalmans were ordered to

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shave their beards and trim their moustaches in a particular manner. But the most powerful exciting cause of disaffection was the introduction of a new leather head dress, supposed to bear some distant resemblance to the European topee or hat, and a new turnscrew formed in the shape of a cross, and ordered to be worn next to the heart. Advantage was seized of these innovations by the emissaries of the Mysore party, who began to instil into the minds of the native garrison a suspicion that the English intended to force them to adopt the Christian religion. Early in May it was reported to Madras that disaffection had openly appeared, and that one battalion, the second of the 4th Regiment, had positively refused to wear the new head dress. Lieutenant-Colonel Darley, commanding the 4th, remonstrated against the new regulations, but his representations had no effect and the ring leaders were ordered to be sent to Fort St. George for trial. Two of them, one a Musalman and the other a Hindu, were sentenced to receive 900 lashes each and to be discharged from the service. The remaining 19 men were sentenced to receive 500 lashes each, but they were pardoned on their full acknowledgment of their error. The mutinous battalion was removed, and its place supplied by the 2nd battalion of the 23rd Regiment.

Discontent, however, still hung about the garrison: secret associations were formed, and meetings held in which the Mysore emissaries did their utmost to excite the sepoys to rebellion. Most of this was known not only to the people in the bazaars, but to the officers themselves. A Muhammadan fakir for many days walked publicly about the town announcing the approaching destruction of the English; but little regard seems to have been paid to these warning signs. No European reinforcement was applied for, and no checks imposed upon the dangerous intercourse between the Mysore party and the native troops.

On June 17th an event occurred which should have roused the officers from their feelings of false security. A sepoy of the 1st Regiment, named Mustápha Beg, secretly informed his commanding officer, Colonel Forbes, that a plot had been planned for the extermination of the European officers and troops. Colonel Forbes not only disbelieved in the imputed treachery of his men, but referred the matter for inquiry to the native officers of the regiment. These being themselves leaders in the conspiracy, pronounced Mustápha Beg's story to be without foundation, declared him to be insane, and caused him to be placed for some time in confinement. The faithful sepoy was subsequently rewarded by the present of 7,000 rupees and a subahdár's pension.[10]

[10] It was alleged by some that Mustápha Beg was one of the chief instigators of the mutiny. The reward bestowed on him caused the greatest dissatisfaction to the rest of the sepoys.

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On July 9th the European garrison retired to rest in fancied security, though a warning had on that very day been given of what was about to occur. A European officer had been grossly insulted on the parade ground by a sepoy, and an ominous feeling of general expectancy was observed among the native troops. The outbreak, which took place before the morning, appears however to have been premature. The combination of adherents of the family of Hyder and others from Mysore with the neighbouring disaffected poligars had not been matured, and the plan of the mutiny was thus destroyed. The treachery of Mustápha Beg seems to have aroused the fear of his co-religionists, and to have led them to hasten the execution of their schemes.

An opportunity was afforded by the appointment of a field day for the battalion of the 23rd Regiment early in the morning of July 10th. On such occasions sepoys were accustomed to sleep within the fort in order that they might be ready to get under arms at an early hour. The battalion of the 1st Regiment, among whom were the chief conspirators, furnished guards upon the night in question,[11] and the Muhammadan native adjutant contrived to post as many of his own faith as possible on this duty within the fort. Other accomplices of the 1st Regiment made various excuses for spending the night within the walls.

At 4 o'clock in the morning the alarm was first raised. At that hour the battalion of the 23rd had been drawn up on the parade ground under the orders of their native officers, and ball cartridge was served out as though for target practice. While these preparations were being made, a band of the mutineers was silently marched down to the main guard, which was chiefly composed of Europeans. The native sepoys of the 1st Regiment on guard there had prepared themselves with loaded muskets, and upon the arrival of the party from the 23rd Regiment in support, turned upon their unsuspecting European comrades and despatched them. This done, part of the mutineers ran to the regiment on parade and announced, with affected surprise and alarm, that the English were killing all the natives they came across. The greater part of the 23rd Regiment was composed of Hindus, who, there is reason to suppose, were not parties to the conspiracy. Hearing the alarming news brought from the main guard, they allowed themselves to be marched to the European barracks (now the civil dispensary) and to be drawn up around the building. There, under orders of their native officers, they poured in volley after volley upon the defenceless and sleeping soldiers, who, half-clothed, and without means of retaliation,

[11] The main guard was furnished by Her Majesty's 69th Regiment.—ED.

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crouched behind pillars or the scanty furniture which their quarters contained.[12]

Meanwhile all posts of importance, including the powder magazine and pagoda, which was used as an arsenal, were secured by parties of the 1st Regiment, while a select band set out on the errand of massacring the European officers. Colonel Fancourt, who commanded the garrison, was their first victim. Aroused by firing at the main guard, which was close to his house (now the office of the Sub-Collector), he hastily ran out in his dressing gown to inquire the cause. He was shot at his own door, and survived but a few hours. Colonel McKerras, of the 23rd Regiment, was brought down on the parade-ground as he hurried to the barracks of his regiment. Major Armstrong of the 16th N.I. was passing outside the fort in a palanquin when he heard the sound of fire-arms. Alighting, he advanced to the crest of the glacis and asked what the firing meant. The answer was a volley fired by some mutineers on the ramparts, which killed him on the spot. About a dozen other officers were killed unarmed in their houses, with their wives [13] and children, some even in their beds. A few hair-breadth escapes occurred. One officer concealed himself under his bed, hidden by a bolster from the sight of the rebels, who were searching the room. Others had sufficient warning to elude the mutineers, and a few of these collected in a house near a corner of the European barracks, where they lay hid until the sepoys had begun to disperse for plunder. The fire having slackened they made a dash for the barracks and broke their way in through its windows. The building was found strewn with the dead, dying and wounded, for the fire of the rebels had proved most destructive. Having possession of the magazine, continuous supplies of ammunition had been served out to them, and two pieces of cannon being found in the arsenal ready mounted, had been brought to an unoccupied barrack, directly in front of that of the 69th, on which they opened fire. In all this they were assisted by dependants of the Mysore family, Tippoo's second son, Futteh Hyder, personally encouraging the rebels.

Recovering from their first surprise, the soldiers had made a gallant defence. Though without officers, they were rallied by some of their sergeants, took possession of the barrack gateway, and made several fruitless sallies with the bayonet. But for the determination thus displayed the rebels would have forced the gate and despatched the whole number in the building. Many

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[12] This account differs somewhat from that given by Major Coates, commanding the detachment of the 69th. See appendix ii. to this chapter.—ED.

[13] Kaye says that the ladies were spared, the Mysore princes promising to hand them over to the leaders of the mutiny after the English were exterminated.

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instances of individual bravery are on record. One of the most signal was that displayed by a soldier posted as sentry over the magazine. An officer who ran past him, pacing up and down with the utmost composure, inquired whether he knew that the sepoys were murdering the Europeans. "I thought as much," he replied. "Why don't you fly for you life?" exclaimed the officer. "I was posted here," he said, "and it is my duty to stay. I've six rounds in my pouch, and I'll sell my life dearly." The noble fellow was afterwards found dead at his post.[14]

Of upwards of 300 men who had been in the barracks, not more than 150 were able to join the officers in breaking out of the building and making for the ramparts close by. Here they were shortly joined by three more officers, including Captain Barrow of the 69th, who took command of the gallant band. An attempt to gain possession of the magazine having failed, they forced their way to the cavalier at the north-east angle of the fort, and, dislodging the sepoys who occupied it, took possession. In this struggle Captain Barrow and other officers were disabled. Leaving a party to guard the wounded and hold the cavalier, the main body still fought its way along the ramparts until it reached the top of the fort gateway, where, sheltered by the bastion wall and some neighbouring bungalows, Sergeant Brodie and a small European guard had maintained their post for several hours, all their officers having fallen.

Fastened to the wall near this part of the fort, a rope was found which had been used to admit some of the mutineers from without. The officers after some consideration deemed it prudent to make use of this mode of egress to escape from the fort, but they could not persuade many of the men to accompany them.[15] With a few they descended, and made their way to the fort on Sayers' Hill, on the other side of the town, of which they took possession. Some hundred men remained bravely at the post of danger, and in default of combatant officers, placed themselves under the command of two young Surgeons named Jones and Dean. To the resolution and untiring energy of these two young men it is chiefly due that the fort was not given up to the rebels.

While these events were progressing, the leaders of the mutiny were acting as though already in secure possession of the fortress. Proceeding to the mahâls they proclaimed Futteh Hyder as râjâ in the open square of the buildings. The Mysore flag, bearing tiger's stripes upon a green field, was produced, and being hoisted

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[14] Captain Blakiston's *Military Adventures under Wellington*, to which book I am indebted for many of the particulars of the mutiny.

[15] This reflection on the officers is not supported by the account given in the History of the Madras Army. See appendix ii.—ED.

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on the fort flagstaff, was nailed to it. Perceiving this, Messrs. Jones and Dean, taking about sixty of the men under them, forced their way to the flagstaff, where one of the 69th undertook the perilous duty of climbing the pole and unfastening the flag. He accomplished his errand in safety, and brought the flag down in triumph.[16]

At this juncture succour arrived. Major Cootes, an officer of one of the native regiments, who happened to live without the fort,[17] started as soon as the alarm was raised, and rode post-haste to the large cavalry station of Ranipet, 14 miles distant. At about 7 A.M. information was given by him to Colonel Gillespie, who commanded Her Majesty's 19th Dragoons and was an old friend of Colonel Fancourt. He was to have spent the previous evening at Vellore, and to have slept at Colonel Fancourt's house on the fatal night, but urgent business had detained him, and when Major Cootes arrived he was about to start for Vellore, intending to breakfast with the Fancourts. On hearing the sad news, he at once started with a squadron of his own corps and a troop of the 7th Native Cavalry, leaving orders for the rest of the cavalry to follow with the galloper guns attached to the 19th Dragoons. He reached the Vellore fort shortly after 9 A.M.

The entrance to the fort was guarded by four massive gates. Of these the two outer were closed and the two inner open. On Colonel Gillespie's arrival a few men of the 69th were lowered into the space between the two closed gates, and unfastened the bolts of the outermost. As every effort to force the inner one proved fruitless, the Colonel caused himself to be drawn up to the ramparts by the rope already referred to, and infused new courage into the defenders by his example. Though still without ammunition, repeated attacks from the rebels were repelled by charges with the bayonet. At about 10 A.M. reinforcements of cavalry arrived, escorting the galloper guns. One of these was applied to the gate, which flew open at the first discharge. It was then arranged that Colonel Gillespie with the remains of the 69th should descend from the ramparts into the fort, while the cavalry, after giving them a fair start, should dash in through the gateway.

The 69th were met by a severe cross fire, and were falling back, when the dragoons galloped in, sword in hand. Colonel Gillespie was himself ridden over in the charge and considerably bruised. Dispersing the sepoys in the neighbourhood of the gate, the squadron formed in line on the parade ground, and pursued the now flying rebels, who were making their way towards the

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[16] See appendix ii.

[17] Some accounts represent him as having escaped from the fort by swimming the ditch, then full of alligators. [But see appendix ii.—ED.]

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narrow passage of escape afforded by the sally-port. Numbers were cut down while thus in retreat, and many others despatched upon the glacis by a troop of dragoons and some native horse sent round to intercept the fugitives. The native cavalry had throughout nobly co-operated with their European comrades. No quarter was given. All the buildings in the fort were explored, and mutineers found in them pitilessly slaughtered. A considerable number had taken possession of the deserted European barracks, from whence they fired on all who passed. A party of dragoons and Governor's Body Guard dismounted, entered the building, and despatched those within. The sickening sight of the mutilated bodies of the Europeans here and of the sick of the 69th, who had been dragged from the regimental hospital and butchered in front of the mahál gates, excited the most lively feelings of resentment, and the men clamoured to be allowed to enter the building and revenge themselves on the princely instigators of the plot; but Colonel Gillespie held them back. Upwards of a hundred rebel sepoys who had sought refuge in the mahàls were however brought out, and being placed under a wall, were fired at with canister from the guns. The total number of mutineers who were killed was very great, eight hundred being found dead in the fort alone.[18] The refugees were mostly captured by the police in neighbouring villages, and no less than six hundred were in irons at Vellore and Trichinopoly at one time for their share in the proceedings. A few of these were allowed to serve in other regiments, but most were discharged from the service. Three native officers and fourteen non-commissioned officers and privates were condemned to death at Vellore. The executions took place on the western glacis of the fort. Some were hanged, some shot and some blown from the guns. The last mode of execution produced the profoundest impression. A spectator describes how numbers of kites accompanied the party to the place of execution, "flapping "their wings and screeching as if in anticipation of the bloody "feast, till the fatal flash which scattered the fragments of bodies "in the air, when, pouncing on their prey, they caught in their "talons many pieces of quivering flesh before they could reach the "ground. At sight of this the native troops employed on this "duty, together with the crowd assembled to witness the execu-"tion, set up a yell of horror."

Thus ended the Vellore mutiny. The immediate object of the sepoys was to massacre all the Europeans and to seize the fort in the name of the Mysore family. Their ulterior motives are not certainly known, but Lord William Bentinck, the Gov-

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[18] See appendix ii.—ED.

ernor of Madras, in his general order on the subject, referred to "the extent of the plans which are ascertained to have been connected with the insurrection," which, after careful inquiry, "there was every reason to believe was excited by interested "persons, and was fostered by the deepest intrigue, in which the "native army of this presidency had no part, with the exception "of the two battalions composing the unhappy garrison." The general impression was, however, that the disaffection was wide-spread among the Muhammadan sepoys of the army, and that had the mutiny been successful, there would have been a general rising. "No one knew," writes one who took part in the recapture of the fortress, "how deeply rooted or extensive might have "been the plot. The English seemed to stand as it were on a "volcano, one eruption of which had been experienced, and which "might be succeeded by others, they knew not how soon. Indeed, "it was a considerable time before this feeling subsided."

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In consequence of the revolt the family of Tippoo was removed to Calcutta. The Governor and the Commander-in-Chief were summarily recalled to England, while Colonel Agnew, the Adjutant-General of the army, and Major Pierce, the Deputy Adjutant-General, were removed from their appointments.

Subsequent alarms.

Since 1806 two alarms have been raised in the district, both at Vellore, which is largely inhabited by Muhammadans. In 1838 a foreigner giving himself out to be a Turk, travelling from Hyderabad through Kurnool and Cuddapah, was arrested with treasonable correspondence in his possession. His seizure was followed by that of about a dozen others suspected of being his accomplices, and a moulvi of the town was imprisoned for using treasonable language and publishing a treasonable book.

The last alarm occurred in 1869. Early in May of that year anonymous petitions were received by the Joint Magistrate and the Assistant Superintendent of Police, stating that the Wahábee Muhammadans of Vellore were in league against Government, and had arranged a plot for the massacre of all the European residents on the 21st of the month, in which the 28th Regiment Native Infantry, then stationed at Vellore, was deeply implicated. An East Indian subordinate of the Public Works Department also reported to the District Engineer that he had overheard a Muhammadan munshi of the Small Cause Court speaking to a shopman of his faith about the seditious preaching of a certain kházi. The munshi was sent for and described what he said had occurred in a certain mosque, where sedition had been openly advocated by a Wahábí missionary who had recently arrived from Hyderabad, as well as by others. It was ascertained that a foreigner of this description had visited Vellore, and after having

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been entertained by a subahdár of the regiment, had gone to Madras, but the munshi's witnesses failed to corroborate his story, with the exception of one whose evidence appeared open to suspicion. The Joint Magistrate therefore returned to camp, leaving the police to make further inquiries.

That secret investigation had been made, and something of the nature of the matters under inquiry was soon known through the town. False and exaggerated rumours got afloat and created very general uneasiness. The matter found its way into the newspapers, one of which published a letter written by one of the lady residents of Vellore to a friend, which exhibits the feelings of alarm then prevalent. "There is," she wrote, "a very mutinous "spirit at work here . . . . I fear that we have a very poor chance "of escape, in fact *none*, as we could not reach the railway station "without passing through the lines, and then the large Musalman "town. In 1806 they murdered *all* the officers here, of whom "there are 45 buried in *one* grave. It *was*, it appears, their in-"tention to kill us all on the 21st, and as far as I can see there "is no reason to suppose that they will not carry out their kind "feelings towards us. What can we do? At most 70 against "600?"

Meanwhile the Deputy Inspector-General of Police assiduously prosecuted his inquiries, and collected a good deal of alarming hearsay evidence of the supposed conspiracy, which he hastily communicated to the officer commanding the 28th Regiment, who held a court of inquiry, while he issued arms and ammunition, as a matter of precaution, to the European pensioners of Vellore. "The court of inquiry however elicited nothing to indicate that "the report of disaffection in the regiment, which had been so "hastily accepted and communicated to the commandant, had any "foundation whatever, and as soon as the Joint Magistrate and "Deputy Inspector-General heard what had been done by the "officer commanding the station, they returned to Vellore, and "after consultation with that officer, the arms and ammunition "issued to the pensioners were withdrawn."[19] The Inspector-General of Police at this time arrived at the station, and after making most careful inquiries, was able to dissipate the fears which had been excited. It appeared from his investigations that the whole affair had been nothing more than a conspiracy among the orthodox Muhammadans to arouse alarm regarding the designs of the Wahábees, and to prevent these sectarians from frequenting their mosques. The popular disquiet quickly subsided, and since 1869 nothing has occurred to disturb the district.

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[19] Order of the Madras Government, dated 14th June 1869.

CHAPTER III.

REVENUE HISTORY.

EARLY NATIVE SYSTEMS—Tenures—The village community—Classes of land—Musalman encroachments — The land-tax. EARLY BRITISH SETTLEMENTS—Village rents—First ryotwári settlement—The paimash—The southern taluks—Captain Graham's incompetency—Mr. Garrow's settlement—Major McLeod, Collector—Mr. Ravenshaw—Reduction of assessments—Mr. Ravenshaw's scheme—Different treatment of méras and swatantrams—Unification of the two divisions—Village rents revived—Mr. Græme's opposition—Mr. Græme's views overruled—Triennial leases introduced—Mr. Græme's report thereon—The assessment of 1215 found excessive—Decennial leases tried—Disapproval of Court of Directors—Mr. Græme's opinion of the assessment—His defence of ryotwári system—Re-introduction of the ryotwári system, 1821—The assessment reduced—A new survey—Further reductions proposed by Mr. Roberts—Rejected by the Board—Decline of revenue and cultivation—Revision of assessments proposed—Proposals pigeon-holed by the Board for sixteen years—Further reductions of assessment, 1854—The new rates—Effect on the revenue—Further reductions in 1864—Inequalities still left. THE NEW SETTLEMENT—The survey—Classification of soils—Classification of villages—Classes of irrigation—Standard grains—Grain values, *Wet crops*, *Dry crops*—Commutation prices—Expenses of cultivation—Allowance for vicissitudes of season—Rates of assessment, Dry lands, Wet lands—Money rates—Average rates—Increase of revenue—Duration of the settlement—Officers who made the settlement—Cost of survey and settlement—Double-crop assessment—Wells—Tóttakkál or garden lands—Dasabandam tenures—Service ináms—Grant and Khayam pattá lands. PERMANENTLY-SETTLED ESTATES. MOTURPHA. SÁYER OR TRANSIT DUTIES—Other sources of revenue.

CHAP. III. EARLY NATIVE SYSTEMS. — Tenures.

NOTHING is known regarding the revenue system of the Kurumba inhabitants of the Carnatic. Ádondai, after the subversion of the Pallava line, is reputed to have peopled Tondamandalam with 300,000 immigrants from the west and south, of whom one-fifth are said to have been of the Vellála caste. The system which he established, called the *mirási* system, is the first of which we have any record.

The cultivable lands of the conquered country are said to have been divided among the Vellála immigrants, who were moreover given the title to participate in such communal rights as pasturing cattle or cutting fuel on the village waste lands. The hereditary possession of these lands and privileges belonged to the Vellálas alone, and was originally known by the term *kániyátchi*, a word which, after the introduction of the Muhammadan rule, was displaced by the Arabic expression *mirási*. The mirási right of the Vellálas must, however, be distinguished from official mirási, or the right of village servants to hold land free of rent or on very favourable terms.

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At first there appears to have been no permanent apportionment of lands among the village mirásidárs, but what was termed the *pasankarai* or *samudáyam* tenure was adopted. According to this system periodical divisions were made, each sharer being bound to cultivate his share with a specified number of ploughs and labourers, while at harvest the gross produce of all the village lands was divided, after the revenue due to the State had been deducted. In many villages, however, these periodical allotments after a time ceased, and holdings were by mutual consent allowed to become permanent, the new system being called *arudikarai* or *palabhógam*. The shares in an arudikarai village were saleable, but co-mirásidárs had the right of pre-emption. This power of sale led in some instances to the gradual transfer of all the shares to one individual, and a village thus in the possession of a single person was styled a *yékabhógam* village.

Besides the mirásidárs the village contained other cultivators called *páyakáris*. These were originally strangers to whom lands were leased out for cultivation by the village sharers, and many by long continued occupation and residence acquired a sort of right to possession, being called *ulkudi páyakáris*, or permanent tenants, in contradistinction to *parakudi páyakáris* who only enjoyed a temporary right of occupancy. Both paid, in addition to the revenue due to the State, a rent to the mirásidárs termed *swánu bhógam* or *tundu váram*.

The village community.

Each village was of the nature of a small corporation, the affairs of which were managed by a headman with a staff of subordinate village servants remunerated by assignments of land, or mâniams. The head Vellálan, or monigar, who was without any remuneration in the shape of mâniam, collected from the other mirásidárs the assessments payable to Government, and discharged the duties of judge and magistrate in petty matters. To keep the village accounts, to have charge of the village records, and to perform the duties of general scribe there was a kanakkan who was assisted in some of the minor duties of his office by a nótagár or shroff. The taliári was the village constable, the tóti the messenger of the village headman, and the nírganti distributed the water in customary proportions to the fields of the cultivators. The astrologer discharged duties imagined to be important, announcing the dates of religious feasts, and fixing the days propitious for domestic ceremonies or agricultural operations. The smith and the carpenter constructed and repaired the instruments of husbandry which were used by the villagers, while the barber shaved them and dabbled in surgery. Besides these were the potter, the washerman, the cobbler, the goldsmith, and sometimes the snake doctor, the head shepherd, the head merchant or Chetti, with several more of the kind. These

were granted assignments of land, or tarabadi mâniams, and the right to collect 'méra,' or fees, in the shape of a certain number of handfuls of grain from each mirásidár at the time of harvest.

Classes of land.

The lands of the village were variously classed. That which was cultivated was divided into *nanjai* or irrigated, *punjai* or dry, and *tóttakkál* or garden land; but this classification at first seems to have been constantly varying, the nanjai of one year becoming the punjai of the next, and perhaps the tóttakkál of the succeeding season. With such variations in the character of the cultivation, the nature of the assessment due upon the land also changed, for, while nanjai land was usually *várapat*, or liable to a division of the produce, punjai and tóttakkál were almost invariably *tirwapat* or charged with a fixed rent not dependent upon the quantity of the produce. This distinction arose from the fact that the fate of nanjai crops was always more or less doubtful, and the risk of failure from an insufficient supply of water was, therefore, shared by the State with the cultivator, while punjai and tóttakkál crops being more free from such risks, the assessment imposed on them was fixed and unchanged. It was moreover usual to grow together on the same dry and garden land various descriptions of crops, each ripening at a different season, so that a division of the produce in such cases was both difficult and inconvenient.

For the village waste lands no assessment was paid. They were classed as *poramboke* and *tarasu*, the former including rocky, sterile soils, or lands reserved for public purposes, while the latter comprised all lands cultivable, but not cultivated within the memory of man (*anádi karambu*), or which had been cultivated, but abandoned, within that period (*shéykal karambu*).

Musalman encroachments.

The privileges of the village proprietors were first abridged by the Muhammadans. By them the assessments imposed upon the land were greatly increased, and eventually became so high that the páyakáris could not afford to pay their 'swánu bhógam' to the mirásidárs. These having no power to enforce the payment, gradually ceased to demand it. Losing their 'swánu bhógam' it became no longer worth their while to employ páyakáris, and they accordingly refused to allow these to cultivate, while at the same time they failed to cultivate the lands themselves. The waste lands were, under these circumstances, summarily confiscated by the Government, which granted them to tenants of its own, at first as a temporary measure, but the arrangement in course of time became permanent. The creed of the conquerors was that all land was the exclusive property of the State, and they scouted the idea that the mirásidárs enjoyed any rights which the páyakáris did not equally possess. Both were the tenants of the State, and the State was the landlord of all. Most of the distinctive features of the old system

CHAP. III. EARLY NATIVE SYSTEMS.

were in this manner gradually effaced, and the Collector of the district reported soon after the cession of the Carnatic that the mirási system had no existence in North Arcot.[1]

Musalman encroachments.

The only class whose rights had been at all respected by the Muhammadans were the Bráhmans. Their mirási privileges were termed 'swástiams' and continued to be a valuable and saleable property when all other lands were, in 1824, declared by the Collector to be absolutely unsaleable.

Though the Muhammadans are credited with having greatly increased the assessments of the country, the increase had been gradually introduced by their predecessors, part being announced as temporary. The Muhammadan Government, however, accepted and enforced the whole as a permanent charge.

The land-tax.

The assessment according to Menu, and also according to the practice of the early Hindu Governments, was one-sixth of the produce under ordinary circumstances, but as much as one-quarter in times of necessity, such as war. In the thirteenth century one of the Pándiyan kings introduced the novelty of demanding the sixth share separated from the husk, and this rate was generally adopted by subsequent Hindu Governments until the extension of the Vijayanagar power over the south, when the assessments levied by that Government from its subjects were introduced. These had been fixed by Vidyáranya, the prime minister, at one-sixth for the king, one-thirtieth for Bráhmans, one-twentieth for the gods, and the remainder to the proprietor. The share of the Bráhmans and the gods was payable to the sovereign, who was charged with the duty of its distribution. This arrangement still left the mirásidár with three-fourths of the gross produce, but after the subversion of the Vijayanagar kingdom, when the country was distracted by constant war, a number of imposts, or temporary aids, were added, under the pretext of necessity, by the various local Governments, and the actual demand was increased to about one-half of the gross produce. This enhanced demand was perpetuated by the Muhammadans, for their doctrine was "that the taking of a half is no more than strict justice and is not "tyrannical, because as it is lawful to take the whole of the persons

[1] In 1818 a further reference resulted in the Collector stating that heads of villages had certain mirási rights. It had been usual on establishing a village to grant him lands called 'grámattán mâniam' and fees in kind called 'swatantrams.' The Muhammadan Government had respected this right, and allowed it to descend in the family, and to be transferred temporarily, or permanently, but for misdemeanour it was liable to resumption. All the rest of the land was, the Collector said, at the disposal of Government, and there was no idea that the grámattán was the proprietor of the village. In agrahárams there was, however, a regular mirási right, which arose from a grant or 'dána sásanam.'

"and property of infidels, and to distribute it among the Musal- "mans, it follows that taking one-half of their income is lawful "*à fortiori.*"

The land-tax.

As the first political intercourse of the English was with Muhammadan rulers, and as Muhammadan institutions were those with which they had become familiar when the Carnatic was ceded after a long Muhammadan administration, it was not unnatural that the existing assessments and revenue arrangement should have been considered proper and suitable to the country, and accepted as a basis on which to fashion the Company's revenue system.

EARLY BRITISH SETTLEMENTS.

Village rents.

Mr. George Stratton was the first Collector of the Northern Division of Arcot. In making his first settlement of the revenues of the district he "resolved not to recede from the desirable object "of introducing generally the system of village rents, constituting "the head inhabitants of each village its renters, and making them "jointly and severally responsible for the due performance of each "other's engagements." This system, he observed, had been usual under the Nabob's Government, and would in his opinion secure to the ryots a just return for their labours. He seems, however, to have had some difficulty in persuading the villagers of this, for he complains of the "strong prejudice and diffidences of some "against involving themselves in the responsibility of renters." We can hardly wonder at this, for Mr. Stratton drew a sad picture of the condition of the country, and commented upon the decline of the Government villages as compared with those held by inámdárs. Many of the former he described as utterly deserted, and the whole of their lands waste. To show to what an extent the rapacity of the Nabob's renters had been carried, he stated that it was only in a few jágír villages that the ryots got their full proportion of váram, while in Government villages sometimes the whole produce had been seized by the renter or the Nabob's servants. In others the cultivators received from one to three parts out of ten, instead of the customary four or five. Their share in fact was often "only what they could conceal, or make "away with."

The Board approved of Mr. Stratton's settlement by village rents, but expressed a desire to see established a "system where the "proprietary inhabitants at large of each village enter into engage- "ments with the Sircar, and derive a common and exclusive interest "in the cultivation of their lands in proportion to their right of "property." This was in fact the re-establishment of the old mirási system, which had by this time been almost entirely destroyed during the administration of the Muhammadan Governments.

Notwithstanding this expression of the Board's wishes the settlement of fasli 1212 was formed by Mr. Stratton on the same

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Village rents.

principle of village rents—a system which, he contended, possessed all the advantages of a ryotwári settlement, since he had, in consequence of complaints of improper exactions by the renters in the previous year, particularized in the rent pattá of each village the exact assessment they were entitled to "agreeable to the rates fixed "many years before by Rájá Beerbur, commonly called Ráyoji, "who for many years managed the revenues of the Arcot Soubah, "under the Nabob Wáláj á." The 'persevering obstinacy of the head villagers' had again forced him in some cases not to make the agreement with them, but to accept the tender of strangers. His prejudice in favour of the renting system had been strengthened, and he expressed his conviction that it afforded "the best means "of attaining a knowledge of the resources of the country from "frequent competition of interest." Eventually he hoped to see established "the system of permanent rents, which, by giving the "landlords a property in the soil, stimulates their exertions in the "hope of higher gain."

First ryotwári settlement.

The following year's settlement was however ryotwári, for Mr. Stratton had meanwhile been succeeded by Mr. Cockburn, who was transferred from the district of Salem to the charge of the Northern Division of Arcot, the Báramahál, and the Bálaghát provinces. The result of the change of system was a considerable increase of revenue, in spite of an unfavourable season, owing to the discovery of unrecorded cultivation and a 'truer ascertainment of the produce.' The settlement was generally made after considering the average payments in money and grain by each ryot during the previous ten years. To the average money rents of dry lands during this series of years the Collector added certain extra assessments, which had for years been collected, and which he in another letter characterized as exactions. The average share of the produce of wet lands was commuted into a money payment, based upon the average prices ruling during the same period of ten years, but the nanjai revenue was increased by 15 per cent., as all méras paid to village officers were resumed, and one-half added to the Government share. The service ináms also seem to have been resumed and fully assessed. The results of this mode of settlement he was "induced to consider favourable to the increasing prosperity of the "country, and at the same time the revenue is improved as well "by a reduction of the expenses of management, by receiving in "money and not in kind, as by the effects produced in preventing "the numerous frauds practised where payment in kind obtains."[2]

[2] The Collector appended a statement showing the highest and lowest rates of assessment imposed by him in the various taluks for nanjai, punjai, and garden land. They varied very considerably, but taking the whole of the Northern Division the highest punjai rate was Rs. 10-15-6 per *káni* in Tiruvalam,

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First ryotwári settlement.

Mr. Cockburn's administration appears to have been disapproved of by Government, for the money collected on account of resumed méra was directed to be restored, and Mr. Cockburn was removed to the judicial line. His successor was Mr. Græme, a gentleman whose name is still gratefully remembered in this district as that of one who for fifteen years laboured to secure the well being of its inhabitants. He was as staunch an advocate for the ryotwári as Mr. Stratton had been for the permanent renting system, and his yearly administration reports contain forcible arguments in support of his views.

On October 14th, 1805, Mr. Græme submitted his report upon the settlement for fasli 1214. As in the previous year, an individual settlement was effected with each ryot, and the assessments were everywhere collected in money alone. The accounts, however, exhibited a decrease of revenue, attributed to the disturbances among the Chittoor pálaiyams, the failure of rain, the restoration of the assessments of resumed méras ordered by Government, and reductions in the rent of lands found to have been overrated. His next settlement would, the Collector hoped, be based upon the results of a general survey of the district which would be completed within six months.

The paimash.

This general survey had been conducted in consequence of the orders of Government to Mr. Cockburn upon his transfer to this district. Mr. Cockburn, however, had only succeeded in completing the survey of the Báramahál; that of the Northern Division of Arcot was for some reason delayed, and was eventually carried out by Mr. Græme. His accounts, known as the district paimash, are valuable records, still carefully preserved and frequently referred to.[3]

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and the lowest Rs. 0-5-11$\frac{3}{5}$ in Kadapanattam. The highest rate for nanjai was Rs. 58 in Satghur, and the lowest Rs. 0-15-0 in Ambúr. The highest garden rate was Rs. 70-15-9 in Kávéripák, and the lowest Rs. 1-1-2 in Venkatagirikóta. Thus the rate for garden lands was very much in excess of that for nanjai. The Collector remarked upon this, and recommended its reduction to the rates of ordinary cultivation—a proposal subsequently sanctioned by Government.

[3] The original kadján paimash accounts were unfortunately handed over to village karnams without signature or seal. Maráthi copies on coarse paper were kept in the taluk cutcherries, but these too were unsigned by Collector, and were moreover full of erasures and blots. In 1825 Mr. Chamier, the Acting Collector, recalled all the karnams' copies, and had them compared with the Maráthi documents in the taluk offices. After being marked with the Collector's seal they were retained in the taluk, copies being made for the karnams, and for lodgment in the Collector's record-room.

The survey was by no means an accurate one and the classification and assessment of lands do not appear to have been just. For example wet lands under some small rain-fed tanks are found classed as double crop, whereas those in some villages served by the Kávéripák tank are entered as only single-crop lands.

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The paimash.

The work included both a general survey, and a classification, with assessment, of all lands. By the survey all lands, both cultivated and waste, were divided into lots, each bearing a number, and the extent of each was recorded. A square having a side of 24 feet was taken as a gunta, one hundred of which composed a káni, which is equivalent to $1\frac{1}{3}$ acre.

In the classification accounts each field was entered as nanjai, punjai, or tóttakkál "according to its capabilities, and the nature of "the cultivation which had been carried on upon it." In fixing the assessment the villages of each taluk were formed into three classes according as their distance from market towns affected the selling price of grain, and the lands in each village were classed under four or more divisions. The third-class land of a first-class village was considered to be equal to the second-class land of a second-class village, and to the first-class land of a third-class village. The same rule of progression continued throughout the classes. The estimate of the produce of each class was then fixed,[4] and the ryot's share, being calculated, was reduced to a money equivalent.

In the case of nanjai land, méra was first deducted, but for other lands no such deduction was made. To give an example. In the Chittoor taluk first-class nanjai, not under wells, in a first-class village was estimated to produce per káni 40 kallams. Deducting ryot's méra Ks. 1–4, the remainder, Ks. 38–12, was divided between Government and the ryots, the Government share being converted into a money payment on the average of ten years' prices,[5] which in this case was Star Pagodas 5–7–70 or Rs. 18–2–6 per káni.

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[4] It appears from the old hukumnáma that the produce of nanjai was fixed by inquiry into the character of the land, and the description and quantity of grain it had produced during some time past. The produce of tóttakkál was settled from the accounts of its gross produce for twelve years, but for punjai merely an estimate was taken of how much the land would probably produce. It seems not unlikely that the records of produce were incorrect.

[5] The assessment of wet lands having been paid in grain, the prices taken were probably those recorded for Government sales of grain. But Government sales only took place when prices were high, so that the average was more or less against the ryot. For nanjai the prices during the fasli years 1204 to 1215, inclusive, were taken (two high priced years, faslis 1208 and 1214, being excluded), and the average of the ten remaining years was struck, the value of samba and navaray paddy being added together and divided by two. For the better sorts of punjai the prices of ragi and cumbu were similarly treated, while for inferior sorts sámai, varagu, and gram were considered, but the details of the arrangement are not given as they are in the case of nanjai.

Nanjai rates were made more favourable for villages situated at a distance from towns, but no such allowance was made for punjai lands; indeed the estimate for the latter seems to have been little more than arbitrary. There were no records of produce and price for punjai, and the directions given to the assessors were to consider the existing money assessment, and apparent fertility of the soil, but it is little more than a fiction to say that Mr. Græme's punjai settlement was a settlement according to the produce.

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The paimash.

The other classes of land were similarly treated, but the amount of méra deducted varied in different taluks, according to local usages, from 3⅛ to 6¼ per cent. The commutation rates also differed in different localities, and were from 112 to 163 measures per pagoda.[6]

An extra charge for a second nanjai crop was levied, at the rate of from 12 to 14 annas in the rupee of the assessment where the land lay under large tanks, and from 8 to 10 annas where it was irrigated by small ones.

In assessing nanjai under wells, and punjai, no méra was deducted, and, since Government did not supply water, the ryot's share was two-thirds. The charge for a second crop on such lands was respectively 12 to 14 annas in the rupee for the former, and 8 annas in the rupee for the latter.

Garden lands were divided into from four to six classes, with a maximum assessment of Rs. 32–13–0, and a minimum of Rs. 6–2–0 per káni.

The average rates for lands in different taluks varied very considerably as exhibited in the following table :—

——	Maximum taluk average.	Minimum taluk average.
	RS. A. P.	RS. A. P.
Punjai	3 9 7½	2 8 $7\frac{1}{16}$
Nanjai	19 11 5	10 6 9
Garden	21 15 1¼	7 5 9½

The average proportion in which the Government and ryots' shares stood for the whole district was nearly as follows :—

——	Government share.	Ryots' share.
Punjai	33·25 per cent.*	66·75 per cent.*
Nanjai	46·75	53·25 do.
Do. under wells	33·25	66·75
Garden land	25 per cent. ...	75 per cent.

* Except in Palmanér and Venkatagirikóta, where it was 50 per cent.

[6] It is now impossible to ascertain the size of the measure taken by Mr. Græme, but it seems probable that it was one of 120 tolas, or 3 lb. weight, of horsegram. [Mr. Rundall, the officer who prepared the scheme for the new settlement (*vide infra*) thought it more likely that the measure was that of 150 tolas prevailing in parts of Chittoor and other taluks. If so, the commutation price varied from Rs. 51–9–10 to Rs. 80 per garce.—ED.]

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The paimash.

The settlement of fasli 1215 was made according to this principle. The average rates for nanjai and punjai were considerably less than they had been in fasli 1213, but garden lands were charged at a higher rate than in that year. Notwithstanding the reduction in the demand per káni for nanjai and punjai, the total revenue for fasli 1215 was considerably in excess of that for fasli 1213, as unregistered cultivation was discovered during the survey, which bore an assessment of Star Pagodas 32,332, or upwards of a lakh of rupees. The Collector expressed his opinion that the ryots of the district paid collectively more than they had done before, but that each individual contributed a juster proportion.

The season of fasli 1216 was a most unfavourable one. The rains had almost entirely failed throughout the district, and the distress of the people almost amounted to a famine. The settlement had been formed according to the survey rates, with but slight alterations in cases where errors had been discovered, but a large extent of land was reported to have been wholly unproductive, and the rest had produced a very unfavourable outturn. The Collector, however, made no remission whatever in partially productive lands, as he considered that "the loss in quantity would be compensated "by the high price of grain, owing to the notorious scarcity." He had at first intended to remit altogether on lands reported to have been wholly unproductive, but finding the village accounts "so "generally falsified, and detection so impossible," he levied a uniform rate of one-half of the full assessment on punjai, and one-third on nanjai "on those able to pay." In a subsequent letter to the Board he stated that he charged a higher proportion on punjai crops than on nanjai, because the failure was not so great in the former as in the latter, and he explained his statement that these reduced rates were collected from "those able to pay" by saying that "the "deficiencies of those who could not, were added to the first assess-"ment of those who could." He had been led to this somewhat extraordinary arrangement by the conviction that were it to be discovered that those unable to meet the Government demand would be exempted from payment, it would have "led to hazard in the "realization of the revenue. As it was, the necessity of a general "assessment being once felt, soon brought matters to an issue." The revenue of the year showed a decrease on that of the previous fasli, but almost the whole demand had, upon the principles adopted by the Collector, been collected. The Board, on reviewing the Collector's arrangements, desired him to let it be clearly understood that any relaxation of the demand was to be "only temporary, and "would be charged against the landholder within a limited period"— a policy especially illiberal, since the old division of nanjai crops

had been superseded by a money payment, calculated at average prices, and consequently very unfavourable to nanjai cultivators in a disastrous season such as that of fasli 1216.

The paimash.

On August 2nd, 1808, Mr. Græme reported upon his jamabandi for fasli 1217. Abundant rain had fallen, but large bodies of cultivators had emigrated, and a great number of cattle had died during the previous fasli, so that the cultivation was not so extended as might have been expected. There was, however, an increase in the revenue as compared with fasli 1216, though it exhibited a considerable decrease as compared with fasli 1215. He reported that the survey might soon be considered complete, and that the assessment might be taken as fixed after the settlement of fasli 1218.

The southern taluks.

In this year, 1808, the new distribution of the charges of Collectors was made, the object being to make the revenue and judicial jurisdictions in the country conformable. It was therefore arranged that, at the close of the fasli, the Venkatagiri and Saidápúr zemindáris, hitherto under Mr. Græme's charge, should be transferred to the Collector of Nellore, while the Krishnagiri Division of the Báramahál was made over to the Collector of Salem. Instead of these the Northern Division of Arcot received the Satyavéd taluk from the Chingleput District, and those taluks south of the Pálár, hitherto included in the Southern Division of Arcot, which had recently been transferred from the late Court at Arni to that of Chittoor. These were Tiruvattúr, Pólúr, Arcot, Vellore, and the Arni jágír. As the southern taluks form an important portion of this district, as at present constituted, a brief account of their administration up to the date of their transfer may not be out of place.

Captain Graham's incompetency.

Captain Graham had been appointed from the charge of the Krishnagiri Division, to that of the Southern Division of Arcot, upon the cession of the Carnatic. He was appointed on August 1st, 1801, and after a delay of nearly four months submitted his scheme for settling the district. It purported to be a village settlement, and the Collector had been induced to reduce the demand of the preceding years by about 30 per cent. in consequence of the well-known oppression of the Nabob's managers, and the "necessity "of a moderation adapted to the actual circumstances of the inhabit-"ants, till gradual improvement, the effect of such moderation, "should justify in the eye of policy an increased demand." That the principle, which Captain Graham thus upheld, was a necessary one was subsequently proved by the discovery that the continuation of the Muhammadan assessments was ruining the country, but the Board very justly remarked that though moderation was certainly

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Captain Graham's incompetency.

desirable, it should not be extended merely to the village renters, but must be made to reach the cultivators as well holding under those renters. Captain Graham's replies led the Board to imagine that the village settlement had been effected with the whole number of proprietary inhabitants, or mirásidárs of the village, and they accordingly approved of his reduction in the demand; but, when the details of the village settlement were submitted, they learned with surprise that, in direct contradiction to his reports, some villages had been individually rented out with joint securities for each other, some with specific securities for themselves alone, and some in farms of various and large extent, all indifferently let to persons of every description. A mass of inconsistencies were also discovered in the Collector's accounts, and Captain Graham was summoned to the Presidency to give a full explanation of his administration. Before the Board he stated that he had always given a preference to the heads of villages in granting villages on rent, but where outsiders offered higher terms he had accepted them. He had generally assessed the villages at the rate of 14 rupees per plough, the rate under the Nabob's management having been 20 rupees. But the Board pointed out that "several villages actually destitute of "inhabitants had been rented at considerable sums." Captain Graham could give no proper explanation, and his statements throughout his examination were so confused, that it was evident that he really knew little of the administration of his district. The accounts of the district were as confused as the Collector's answers, and it was found "impossible to discover who were the persons "under engagements to the Sircar." Captain Graham had "adopted "an arrangement at once unusual and unreasonable, by which villages without any common interests were made severally and jointly "responsible to an indefinite amount for the rents of the pergannah, "if not the whole tahsildary." Numerous complaints from villagers had been presented to the Board, in which it was alleged that they dared not complain to the Collector owing to the notorious influence of the Peshkar, Lakshman Rao, over him. In one instance a complaint of certain inhabitants of Chetpat had been referred to the Collector for report. The Peshkar at once brought forward a pretended balance against the petitioners for fasli 1210, and their grain was attached at his instigation. In scrutinizing the list of renters it was again abundantly clear that gross favouritism had prevailed. A mere Brinjári from the Báramahál had without competition been given villages, the rents of which amounted to nearly Rs. 2,10,000, and had received, also without competition, the lease of the customs of the Arcot taluk at a reduction of 25 per cent. on the ground "that there were twenty-two roads by

"which goods could pass, though none of the twenty-two had been "recently opened!" "It seemed clear," remarked the Board, "that "gross fraud was prevalent, and that Laxman Row, the Peshkar "was the perpetrator." The public interests had suffered by a wanton sacrifice of one-fourth of the revenue, under a plea of indulgence to the oppressed inhabitants, while the nature of the settlement rendered impossible their reaping any advantage from it. His management "betrayed, by a perversion of the ordinary "rules of prudence and precaution, a misapplication of time and "general incompetency."

Captain Graham's incompetency.

Mr. Garrow's settlement.

On September 30th, 1802, Captain Graham was accordingly removed and Mr. George Garrow, the Secretary of the Board of Revenue, was appointed to the charge of the division. Supported by the Board he at once raised the assessments of the district to the rates prevailing at the time of the cession of the country, "varying "according to taluks, according to the mode of irrigation, and ac-"cording to caste or tribe of the ryot, Muhammadans and Bráhmans "being allowed ten in the hundred more than Súdras." On the average the Government share amounted to 57 per cent. on the assumed produce, and this was commuted into money at the rate of 4 Ráyoji kallams to a pagoda. The heads of several villages promptly proceeded to the Presidency, and appealed to the Board, but were "peremptorily ordered to return to their country, and the "peaceful pursuit of their occupations." With regard to the settlement of rents made by the Nabobs, Mr. Garrow reported to the Board that in his opinion it was not so much the amount of it that was considered oppressive, as the great inequality in its distribution among the villages. In his settlement he adopted Ráyoji's rates of assessment, and the revenue in fasli 1210 "on "nanjai cultivation in the several tahsildaries was the basis of the "settlement. Calculating actual cultivation and average produce "of the same for the last five years, and deducting méras, &c., a "division of the remainder was made according to the rates hitherto "allowed. The Sircar rate was commuted for money from a "medium of highest and lowest rates."

For punjai lands Mr. Garrow also followed the rates of fasli 1210, according to which money payments were general, though payments in grain existed in a few villages. The general result of his settlement was a great increase of revenue. He had, he said, made progress in ascertaining the value of the country, and hoped to be able to introduce a ryotwári settlement in fasli 1213. A survey was very much needed, and he suggested that it might be sanctioned. The Board and Government of course approved of his suggestion, but the survey was postponed for years.

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Mr. Garrow's settlement.

As might have been expected, the sudden withdrawal of the concessions granted by Captain Graham caused universal dissatisfaction through the district. Finding the Board obdurate, the aggrieved villagers appealed to the Government who, much to the regret of the Board, removed Mr. Garrow and appointed Major McLeod in January 1804.

Major McLeod, Collector.

In his first report upon the division Major McLeod announced his opinion that the assessment fixed by his predecessor had been very excessive; many families had deserted the district, and cattle were being sold at very reduced rates, showing the poverty to which the villagers had been reduced. He proposed, as a slight relief, taking the average money rent of the previous years, and applying it to the actual cultivation of the current fasli; but the Board were "concerned to learn the anticipated diminution in "revenue," and remarking that the removal of Mr. Garrow had doubtless been considered as a presage of success by the schemers in the district, directed Major McLeod to carry out the settlement as commenced by his predecessor.

In support of his assertion that the Southern Division was over-assessed, Major McLeod in a subsequent letter compared the rates prevailing in the Northern and Southern Divisions of Arcot, and showed that although the more valuable nanjai and punjai lands bore a higher rate in the Northern Division than in the Southern, yet the average assessments in the latter were much higher than the average in the former, which proved that the poorer soils were too heavily taxed. He, therefore, made certain proposals for the reduction of the assessments where they were highest, but the Board declined to sanction them, and resolved to maintain existing rates until the completion of the projected survey.

Being thus opposed by the Board in all his attempts to mitigate the severity of the assessment, Major McLeod appears to have lost interest in his work, and in March 1805 applied to be relieved of his appointment on the score of ill-health. The division was then placed under the management of Mr. Ravenshaw, with two Sub-Collectors, Messrs. Hyde and Ross. The latter had his head-quarters at Arcot, and was in charge of that portion of the district which was, in 1808, transferred to Mr. Græme.

Mr. Ravenshaw.

Mr. Ravenshaw assumed charge of the district on April 4th, 1805, and prepared to conclude the settlement of the fasli. As he had been transferred from the very moderately-rated district of Canara, he was struck by the severity of the land tax in his new division, and put the case so very strongly before the Board that they at last admitted that the inequality of the assessment was beyond a doubt. It appeared from Mr. Ravenshaw's report that the assessments of the Southern Division of Arcot were as follows :—

Mr. Ravenshaw.

—	Rate per Káni.		
	Maximum.	Minimum.	Average.
	RS. A. P.	RS. A. P.	RS. A. P.
Nanjai	51 13 0	2 1 9	14 11 $4\frac{3}{5}$
Punjai	14 7 6	0 10 $3\frac{3}{5}$	4 14 $2\frac{4}{5}$
Garden	87 8 0	5 9 9	28 11 $7\frac{4}{5}$

The following were the rates in the Northern Division :—

—	Rate per Káni.					
	Nanjai.		Punjai.		Garden.	
	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Ambúr ...	38 3 $6\frac{3}{5}$	0 15 0	12 1 0	0 9 0	57 1 4	6 4 0
Chittoor ...	38 13 4	1 11 $9\frac{1}{5}$	8 5 $11\frac{4}{5}$	0 6 $6\frac{4}{5}$	34 11 $4\frac{2}{5}$	2 14 $3\frac{1}{5}$
Kadapanattam.	21 6 $7\frac{1}{5}$	3 0 11	6 8 $10\frac{3}{5}$	0 5 $11\frac{2}{5}$	4 5 9	1 1 $2\frac{1}{5}$
Kávéripák ...	42 10 6	4 6 0	5 4 0	1 5 0	70 15 9	3 8 0
Satghur, ...	58 0 0	4 0 0	14 8 0	0 10 0	46 8 0	3 6 0
Sholinghur ...	40 11 0	2 6 6	5 7 6	1 1 6	57 6 9	7 3 6
Tirupati ...	...	...	...	..	...	...
Tiruvalam ...	47 11 0	3 15 0	15 15 6	0 14 0	47 11 0	3 8 0
Venkatagirikóta.	14 2 $10\frac{4}{5}$	2 5 $9\frac{3}{5}$	6 1 $2\frac{4}{5}$	0 13 11	...	...
TOTAL ...	**301 10 $10\frac{3}{5}$**	**22 12 $11\frac{4}{5}$**	**74 4 $1\frac{1}{5}$**	**6 1 $11\frac{2}{5}$**	**318 11 $11\frac{2}{5}$**	**27 12 $11\frac{2}{5}$**
AVERAGE ...	**37 11 $4\frac{1}{5}$**	**2 13 $7\frac{1}{2}$**	**9 4 6**	**0 12 3**	**45 8 7**	**3 15 7**
	Rs. 20–4–6		Rs. 5–0–4		Rs. 24–12–2	

Reduction of assessments.

These figures showed such an unreasonable variation in rates that the Board recommended to Government that relief should be at once administered, without waiting for the completion of the survey, which had indeed not been commenced. Government in reply remarked that "the share of the produce taken by the Sircar "had been excessive beyond all measure, and they hoped beyond all "example, in any other part of the Company's territories." They directed that all vexatious extra cesses should be abolished, and that Mr. Ravenshaw should be directed to form his next settlement upon the basis of an equal division of the crop between Government and the ryot.

Mr. Ravenshaw, however, owing to the lateness of the season when these instructions reached him, was unable to adopt the principle of an equal division of the crop, but had applied as a

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Reduction of assessments.

measure of relief a reduction, sanctioned by the Board, of all nanjai and punjai rates to Rs. 17–8–0 and Rs. 7 per káni, respectively, when they exceeded those amounts. The result of this would be to give the ryot a quarter of the produce, which, Mr. Ravenshaw remarked, "is less by 25 per cent. than what he is entitled to, viz., "50 per cent." He gave some further instances of the oppressive nature of the assessment. He had found the gross produce of a field not equal to the amount of revenue due upon it. In many villages population and revenue had decreased 90 per cent. and "the poverty of the people was more general than the high assess-"ment." It arose he considered from the rapacity of the heads of villages, who often extorted from the ryots double of the Government demand, and to remedy the evil he urged the introduction of a ryotwári system "which, by defining the specific sum due by each, "was the sure means of checking this evil."

Mr. Ravenshaw's scheme.

The survey of the sub-division was taken in hand by Mr. Ravenshaw in fasli 1215, and was completed in the following year. After the completion of the survey, classification and assessment of the soils were commenced, but were not completed when the work was stopped by the introduction of the three years' lease.[7]

The scheme of assessment drawn up by Mr. Ravenshaw was this. He took as his standard land producing 100 kallams of grain.

From this he deducted in nanjai—

	K.	M.	A.
(1) Resumed swatantrams, méras, &c., due to Government before division of crop	11	2	8
(2) Kalavásam or allowance to labourers from threshing floor	7	5	2
(3) Swatantrams not resumed and due to ryot, &c.	2	11	6
TOTAL DEDUCTION ..	21	7	0
Balance of crop to be equally divided ..	78	5	0
Government share	39	2	8
Add to this swatantram due to Government.	11	2	8
Government due	50	5	0

[7] The work was very hastily and carelessly done, at least in that part of the Southern Division which now forms portion of this district. The classification was chiefly left to karnams and monigars. The demand on the village being first settled, it was allotted among the fields according to karnams' and monigars' classification with a pancháyat.

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Mr. Ravenshaw's scheme.

	RS. A. P.
which commuted into money at 5 kallams per pagoda, and rejecting fractions amounted to	35 0 0

In punjai producing 100 kallams the following deductions were made before calculating the equal division of crop :—

	K. M. A.
Swatantrams resumed by Government ..	1 0 8
Do. not resumed and due to ryot	1 11 12
	3 0 4
Produce to be divided	96 11 12
Government half share	48 5 14
Add resumed swatantrams as above ..	1 0 8
TOTAL ..	49 6 6

	RS. A. P.
which converted into money at 5 kallams per pagoda very nearly amounted to ..	35 0 0

and by the addition of small sums, considered to be due to Government on account of 'contingent charges' and village expenses, it was raised to this sum.

Having fixed these rates of commutation Mr. Ravenshaw drew up the following table of classification for land :—

Class.	Land producing per Káni.	Assessment.		
		Nanjai.	Garden.	Punjai.
	KALLAMS.	RS. A. P.	RS. A. P.	RS. A. P.
1	80	28 0 0	...	...
2	75	26 4 0	...	...
3	70	24 8 0	24 8 0	...
4	65	22 12 0	22 12 0	22 12 0
5	60	21 0 0	21 0 0	...
6	55	19 4 0	19 4 0	...
7	50	17 8 0	17 8 0	...
8	45	15 12 0	15 12 0	...
9	40	14 0 0	14 0 0	14 0 0
10	35	12 4 0	12 4 0	12 4 0
11	30	10 8 0	10 8 0	10 8 0
12	25	8 12 0	...	8 12 0
13	20	7 0 0	...	7 0 0
14	18	...	...	6 8 0
15	15	5 4 0	...	5 4 0
16	10	3 8 0	...	3 8 0
17	8	...	...	3 0 0
18	6	...	...	2 2 8
19	5	1 12 0	...	...
20	4	...	...	1 8 0

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Thus there were 16 nanjai, 12 punjai, and 9 garden land rates, but the average rates in any village were not to exceed 5 pagodas (Rs. 17–8–0) for nanjai, and 2 pagodas (Rs. 7) for punjai per káni. In the case of lands held by Muhammadans and Bráhmans a deduction, at first of 5 per cent. and afterwards of 10 per cent., was allowed,[8] called teazgári.

Different treatment of méras and swatantrams.

It will be observed that in making his settlement of rates Mr. Ravenshaw resumed in the case of nanjai lands almost the whole amount of méra or swatantrams, due under the old Hindu system to the village mirásidárs, and in the case of punjai resumed about one-half of it. In Mr. Græme's settlement, on the contrary, méra, &c., were included in the ryots' share, to be distributed by them. The value of these resumed méras in the southern taluks was formed into a fund for the remuneration of the village monigars, who collected the revenue due by the ryots.

Unification of the two divisions.

Mr. Ross, the Subordinate Collector, stationed at Arcot, continued in charge of the southern taluks after their transfer to the Northern Division. The new district was at this time administered by the Collector, who had the whole of the taluks north of the Pálár, the Sub-Collector, having all those south of the river, and an Assistant who had no independent charge, but disposed of such work as the Collector handed over to him.

Village rents revived.

Very shortly after the reorganization of the districts the Board conceived a new system of settling the country by means of village rents. They had been led to this idea partly in consequence of the destruction, by the introduction of the survey, of the ancient usages of the country to "which the Hindus were proverbially attached," and partly because "the ryotwári system could with difficulty be "brought to assimilate with the new judicial system." The settlement, the Board explained when unfolding their plans to Government, was to be concluded with the whole body of ryots collectively, and not with each specifically. In the recent surveys and assessments of the district it was evident that not merely méras, tundu váram, and other privileges of the mirásidárs were generally incorporated in the land revenues, but in many cases their gráma mâniams were resumed. The pasankarai was forcibly converted into an arudikarai tenure, and they therefore proposed that Collectors, in forming the village leases, should be forbidden to enter into any engagement with persons "not entitled, by hereditary and "prescriptive right, to pay direct to Government."

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[8] This was objected to by Government in 1835. In 1837 notice was issued by the Collector that no teazgári would be given for new lands brought under cultivation by Bráhmans and Muhammadans, nor for lands left waste for any number of years. This partial concession was subsequently cancelled by Government.

The Government evidently failed to comprehend the real object of the Board, which was the revival and encouragement of the mirási system, for, while approving of village rents, they observed that "it does not appear necessary to forbid engagements with ryots not hitherto paying direct to Government."

Village rents revived.

The Board naturally apprehended that such a procedure would interfere with the rights of mirásidárs, but, before going more fully into the question, they resolved to call upon all Collectors for an expression of their views. After explaining the advantages of the system, the Board proceeded, in their letter to Mr. Græme, to say "the change is calculated chiefly to diminish the detail of interference with the private concerns of the cultivators, to give an additional impulse to industry, to approximate, by means of this change, to the formation of estates on permanent rents, and especially to induce a greater facility of collection, and consequent reduction of charges on that account." Mr. Græme was violently opposed to the new plan, and argued strongly against its adoption. It would, he considered, sacrifice the interests of the ryots to those of the monigars, and it would close many of the existing sources of information regarding the resources and general condition of the country by cutting off the intercourse between Europeans and the majority of the population of the country. He predicted that the monigars would grind down the ryots, and allow them barely sufficient for mere subsistence, "and thus those who constitute the great strength of the country will be impoverished." Regarding the advisability of eventually forming permanent estates the Collector referred to his experiences of such estates in the Báramahál, and was assured that the remedy afforded by the Civil Courts was not sufficient to obviate the many evils of an abolition of the ryotwári settlement. A large number of cultivators would, he felt certain, gradually lose their independence by being reduced to the necessity of obtaining pecuniary assistance from the monigars, and even those who were not encumbered by such obligations would find it impossible to contest a suit, in which their rival could, by his personal influence, command the evidence of the majority of the dependent villagers. The monigar's influence would further result in the village accounts becoming unreliable, owing to the karnams being placed more than ever under the monigar's influence. "At least," urged Mr. Græme, "let the village settlement be deferred until the inequalities in the survey of the Northern Division be corrected, and until the survey of the newly transferred southern taluks be complete, so that the ryots may have some fixed rate to refer to when they have cause to complain." Should the Board still insist upon some form of village rent, Mr. Græme proposed a modification of their plan, by which the Collector should, in the early part

Mr. Græme's opposition.

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of each year, fix the village rents with reference to the accounts of previous year, and the state of the season. Upon the rent, thus fixed, he would allow the monigar and karnam a joint commission of from 10 to 12 per cent., "which is about 5 or 7 per cent. more "than at present, but not more than they received in the Nabob's "time till fasli 1212 when my predecessor reduced it."[9]

Mr. Græme's views overruled.

On August 8th the Board replied to the Collector's objections, and expressed their trust "that most of the evils anticipated would "be either wholly prevented, or materially alleviated, and that "the benefits to be expected would outweigh these inconveniences." Their opinion regarding the objectionable character of the ryotwári settlement was shared by the Government, who considered that the system "involved a constant interference with the cultivators, and "a continual exercise of that domiciliary control on the part of the "officers of revenue, which it is the leading object of the permanent "settlement to exclude."

Triennial leases introduced.

Mr. Græme accordingly prepared to make a settlement with renters for three years, a term which had after some consideration been decided upon. According to the Board's instructions village mirásidárs were invariably to be given the precedence in granting the leases, and all renters were bound to give pattás to the cultivating ryots at survey rates.

Mr. Græme at first had misapprehended the intentions of Government, and had contemplated a settlement with a head of the village or monigar alone. The mistake was perhaps natural, as the Board had distinctly expressed their object to be the formation of permanent estates. On December 14th, 1808, they explained that it was their particular desire that the settlement should be concluded with the whole of the occupant ryots, their object being the "mere transition from ryotwári to village lease, without depart-"ing materially from the principles of the former system." The chief difference consisted in the extension of the settlement from one to three years, and the arrangement that the villagers should be jointly, as well as severally, responsible for the amount of the rent. Owing to the Collector's misapprehension of their directions, they feared that the settlement already in progress would not be so satisfactory as might be wished, and authorised him, should he think so, to postpone the introduction of the system until fasli 1219.

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[9] It appears from this letter of Mr. Græme that all the monigar, karnam, kával and dasabandam inám lands, assumed by Mr. Cockburn, had not been restored, but that money payments, considerably less than the value of the land, had been made, so that monigars, since fasli 1213, had paid rent for their mâniam lands like other ryots.

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Mr. Græme, however, did not avail himself of this permission, and the three years' rent was introduced in fasli 1218. He reported the result on August 17th, 1809. In deciding the rent amount of each village within his division he had taken, as a general basis, the average of the five preceding faslis, as they comprehended a mixture of good and unfavourable seasons, but the general settlement was somewhat higher than the average thus obtained.

Triennial leases introduced.

The settlement certainly appears very high, for it exceeded the average collection of the six preceding years by no less than Rs. 1,98,712. Each year's settlement was as follows:—

Fasli	RS.
1218	22,24,249
1219	22,46,854
1220	22,54,675
AVERAGE ..	22,41,926

whereas the average collections for faslis 1211 to 1217 had only been Rs. 20,43,213.

Of the effects of the new system the Collector expresses himself thus: "As far as it has proceeded collections have come in with "tolerable regularity, but the season has been very favourable. A "bad year would afford a more correct test of its efficiency. Fre-"quent disputes have occurred between the ryots and renters, the "one complaining of unjust demand, the other of unnecessary and "evasive delay in the payment of rent; but such disputes are of "course to be expected on the introduction of a new system, before "the nature of the respective rights of the parties is marked and "defined by precedents."

The rent system of the villages south of the Pálár was introduced by Mr. Ross, the subordinate Collector, who reported the result to Mr. Græme on May 7th, 1809. The settlement for the three years showed an increase in the yearly demand, as compared with that of the five previous faslis, of no less than 16½ per cent. for the whole of his division, though the rate of increase for the various taluks differed, being as much as 25¼ per cent. in the Tiruvattúr taluk, described as possessing great local advantages in being well supplied with water from the Pálár and Cheyár rivers. In making his settlement Mr. Ross reported that he had "found it "impossible to lay down any particular rule, further than the rule "of moderation, by which all the villages should be settled." He preferred, therefore, after taking the accounts of each village separately, to examine the state of its population, whether the cultivation was carried on by ulkudi or parakudi ryots, what remissions

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Triennial leases introduced.

had been made in previous rents, what expended on repairs, and generally to consider its advantages and disadvantages. "Each "village has been settled separately, and as far as I can judge the "mode has proved satisfactory to those concerned." He concluded by remarking upon the great inconvenience he had laboured under, from the want of a regular survey and assessment, especially in the Vellore taluk, where the lands were most unequally assessed. It was, however, impossible to accomplish a survey during the continuation of the lease, as the karnams were entirely in the hands of those whose interests led them to concealment and fraud, and he suggested that, at the conclusion of the terms of the existing leases, two years should be devoted to the purpose of a regular classification, before any permanent settlement should be introduced.

Mr. Græme's report thereon.

Mr. Græme's next administration report is dated September 14th, 1811, when the village leases were nearly reaching their termination, and he had been enabled to form a juster estimate of their success. On this point he writes: "There have been many "complaints made by ryots against renters for oppression, but upon "the whole I do not think that this has been carried to any great "extent; but this I consider to be in a great measure attributable "to the circumscribed means of the renters, which have obliged "them in many instances to receive, rather than to impose, terms "upon their under-tenants. However beneficial this may be to the "ryots, it has perhaps prevented the renters from availing them- "selves of the whole resources of their villages, and obliged them "to submit to a rent less than what they might reasonably have "expected did they possess capital sufficient to enable them to "answer the Government demand, without being dependent upon the "ryots for their immediate assistance." Under these circumstances the realization of the revenue could only be hoped for in favourable seasons, and unfortunately the season of fasli 1219 was eminently unfavourable, and that of fasli 1220 threatened to be the same. The rains of the former fasli had been "violent, unseason- "able, and continued so long at a time as to do material and exten- "sive damage to the crops." The outturn of the district was therefore much below the average, but prices had not risen in proportion, as there was still a large surplus of the very favourable seasons of faslis 1217 and 1218 in the market. The prices at which renters were obliged to sell to merchants were on an average only half of the survey prices, and though the bazaar rates were higher, the majority of the renters could not avail themselves of these. There had therefore been great difficulty in collecting the revenue, and a recourse to distraint, and selling the property of very many renters and their securities had been found necessary.

Mr. Græme was of opinion that at least Rs. 28,000 would certainly be irrecoverable for fasli 1219, and that there would be an uncollected balance of no less than fourteen lakhs of rupees in the current fasli.

The assessment of 1215 found excessive.

Having made these very disagreeable announcements, the Collector proceeded candidly to confess that his assessment of the district made in fasli 1215 was grievously excessive. In that year a large extent of unrecorded cultivation had been discovered and assessed. By lowering or equalising the rates upon recorded cultivation the Collector had imagined that the assessment, without being burdensome, would be more equally distributed, but by the experience of five years he had been persuaded that the district was over-assessed to the amount of from Rs. 70,000 to Rs. 1,05,000, which almost equalled the amounts due upon the unrecorded cultivation.

It appeared clear to him that the cultivators had only been enabled to pay the exorbitant demands of the Nabob's Government by being in possession of inám land, or by surreptitiously cultivating lands not brought to account. The advantages of inám lands had, however, been much curtailed under the management of the Company, and the unrecorded cultivation having been brought to account, it was impossible that the existing rates could be realised in any but the most favourable seasons. He, therefore, recommended a permanent reduction of Rs. 84,000 as "requi-"site to the interests of the inhabitants, and likely both to promote "extension of cultivation, and to ensure the facility and regularity "of the collections." In consequence of the comparative cheapness of grain in the current season he further recommended a temporary remission of Rs. 91,000 in the two divisions of the district.

Decennial leases tried.

On July 25th, 1811, the Board announced the resolve of Government to continue the system of village leases for a still further period. Seven years was first proposed, but ten eventually decided upon, in order to give the system a fair trial. Mr. Græme was again very much opposed to the continuation of the system, and on August 7th wrote: "An extreme anxiety for the permanent "welfare of the numerous body of inhabitants committed to my "protection induces me to make another effort to secure their "interests." He proposed that the settlement should be made directly with them, each cultivator being held answerable, in proportion to the extent of his holding, for the arrears of each individual ryot. This, he considered, would create a general excitement to personal exertion, and make the ryots mutually assist one another in cases of misfortunes. He proposed as the basis of his settlement the average collections of the past seven years.

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Decennial leases tried.

In reply the Board of Revenue, on August 12th, expressed their willingness that the settlement should be effected with as many of the villagers as possible, but only doubted whether many might not be too poor to be eligible to take a part in the contract. One point they insisted upon, that the settlement should not be with each ryot, but with the whole body of renters for the whole farm, each renter being responsible for the full amount of the farm. The Collector was directed, in forming the settlement, to keep in mind the idea of a permanent settlement to be based upon it. The object of the lease was but to prepare the way for a permanent settlement, "to raise a superstructure only to be partially modified, "and, by these means, also to afford the Collector the advantage of "unembarrassed leisure for carrying the necessary modifications into "effect." The basis proposed by Mr. Græme they considered too low, being Rs. 2,10,000 less than the settlement for fasli 1220, and they thought that it should not fall short of the average of the three years' lease.

On September 7th Mr. Græme expressed his concern to find that the Board objected to the average collections of seven years being taken as the basis for the lease. It was true that the period included two years of extraordinary drought and famine, but what security, he asked, had the renters that such years would not recur. "Though the average collections of seven years falls so much short "of the settlement of fasli 1220, it is only Rs. 76,818 less than the "collections of that fasli, and I am much afraid that the amount "collected was more than it was expedient for the future interests of "the country to collect, but, at the time of collecting, it was difficult "to know this, or to act otherwise than try to bring in as much of "the settlement as possible."

On August 14th, 1812, the Collector reported the particulars of his settlement for the ten years. The amounts for each year exclusive of peshkash were as follows:—

Fasli.	RS.
1221 (1811–12)	13,60,918
1222 (1812–13)	16,43,133
1223 (1813–14)	16,60,242
1224 (1814–15)	16,68,128
1225 (1815–16)	16,70,413
1226 (1816–17)	16,72,132
1227 (1817–18)	16,72,377
1228 (1818–19)	16,72,394
1229 (1819–20)	16,72,758
1230 (1820–21)	16,75,376

The average was Rs. 1,89,595 less than the settlement of fasli 1220, the last year of the triennial lease, but reductions had been

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Decennial leases tried.

necessary on account of the general poverty of the people, the cheapness of grain, emigration, and other circumstances. He had also taken into consideration the over-assessment of Rs. 84,000 in fasli 1215, but as the season of fasli 1221 had been extremely bad, he found it impossible to make the settlement for that year upon the general basis proposed, and he had accordingly formed it with reference to the state of the season and the exhausted condition of the renters. The total deduction, which he thus found it necessary to make, amounted to Rs. 2,75,031, which however he did not intend permanently to relinquish, but to apportion on the remaining years of the lease, so that the average of the ten years should equal that of the seven preceding.[10] Both Government and the Board approved of these arrangements, but the former considered that the permanent lease should be introduced as speedily as possible, for otherwise they apprehended that ryots might decrease their cultivation in order to secure better terms for themselves eventually. It was, therefore, directed that a clause should be inserted in the renters' agreements declaring that they should be permanent, if approved by Government, in all cases in which satisfactory terms had been offered. "In the improbable case of the "Honorable Court withholding their sanction to the settlement being "rendered perpetual, it will at all events be binding on Government "for ten years."

The season of fasli 1222 was an indifferent one. Many of the renters lost heavily on their speculations, and it was with difficulty that the closing balances of the year were realised. Mr. Græme again expressed his opinion against the settlement. "I cannot," he wrote on March 19th, 1812, "deceive myself, and I should be "unwilling to deceive the Government, by holding out the hope that "the present amount of demand, whether as applied to the village "rent, or to a temporary or permanent ryotwari settlement, possesses "any strong principle of production; that it contains the seed of any "comprehensive improvement within the period of the lease, or "perhaps within any given period." He urged the advisability of making a general reduction of 10 per cent., thus leaving a surplus to those "whose keen sense of interest would be likely to urge them "to an early application of it to the general improvement of the

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[10] The Board subsequently, in 1815, declared that they had never sanctioned the Collector's proposal for 'shráyam' or subsequent addition of temporary remission, and say that it is certainly at variance with the fundamental principles of the lease; they directed that from fasli 1225 it should be discontinued, but did not propose a refund of past collections. Since nothing had been said regarding the 'shráyam' in the Board's original proceedings on the Collector's report, their censure of his action seems unjust.

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"country." The present demand, he felt assured, left little more than enough for bare subsistence, and would, in the event of a famine, produce enormous calamity.

Decennial leases tried.

The following years were, however, more favourable to the prospects of the lease, and in October 1815 Mr. Græme reported that the renters had, on the whole, certainly derived profits, and under a series of moderate years he had no doubt that the system would thrive.

Disapproval of Court of Directors.

The cherished scheme of Government and Board had, however, before this received a death blow from the Court of Directors in England, who expressed their surprise that the decennial lease should have been adopted in the face of repeated letters from home, in which the Court had expressed opinions unfavourable to that mode of settlement. In 1813 therefore Government issued orders that the ten years' lease should be announced as terminable.

Mr. Græme's opinion of the assessment.

In 1818 Mr. Græme left the district which he had so successfully administered for fifteen years. Before leaving he recorded his opinion as to the amount of the eventual demand which Government should make. Though the Muhammadan accounts, he observed, went to show that the Company had been more moderate than their predecessors, those accounts could not be depended upon, and probably much which appeared in them was never collected and never reached the treasury. The three years' lease was admittedly too high. The other leases were the average from 1211 to 1217, and the decennial lease which was fixed with reference to the former. With regard to the decennial lease, the years following fasli 1221 were "favourable beyond the general expectations," and, were this state of affairs continued, the assessment might be considered moderate; but it was obviously impossible to count upon such an event. The reduction of 10 per cent. he had previously recommended would be "a real boon to the people "and worthy of the generosity of Government." Were it considered sufficient that the district should simply be stationary, a remission of from 3 to 4 per cent. was still, he considered, advisable, though a higher reduction of the Government demand was desirable. He pointed to the case of the decennial renters who had granted remissions of from 10 to 12 per cent. without injuring their aggregate collections, but on the contrary deriving considerable profit. A remission of 12 per cent., therefore, would probably not result in any positive or certain loss of revenue.

His defence of ryotwári system.

He then proceeded to defend the ryotwári system which had been unjustly charged as an organised system of oppression. "Specific "acts of severity, which it has been attempted to attach peculiarly "and almost exclusively to the ryotwári, have been practised under

"every species of administration. . . . Far from these evils "having been introduced, or confirmed by the ryotwári they have "been moderated and nearly exterminated, where the Collector has "possessed those feelings for the welfare of the common ryots, for "which I give credit to most of the Collectors who were early edu- "cated in an attachment to the revenue line, and particularly in a "partiality for a system whose first inherent principle is to raise the "low and to humble the great." Over-assessment, he admitted, had made ryotwári settlements oppressive, but "the evil of over-assess- "ment has tainted every system, and I sincerely believe that the "ryotwári, by exposing more details, by causing more direct and "more constant communication between Collectors, and their infe- "rior native officers, and the ryots, has more early led to the detec- "tion of it, and to the means of correcting it, and in practice to a "more lenient enforcement of the Government dues. . . . But "leave the village lease to the operation of a permanent settlement, "or a settlement, for a long duration, on the principle of the inter- "ference of revenue officers being unnecessary; withdraw the "efficient revenue establishment, and leave the disputes between "ryots to be determined entirely by distant tribunals, and it will "end in the subjection of the ryots."

Mr. Græme's defence of ryotwári system.

The term of the decennial lease closed in 1821, when Mr. Cooke re-introduced the ryotwári system. The Board, in submitting to Government Mr. Græme's letter, had given it as their opinion that a remission nearly equal to that proposed by the Collector was necessary to bring about an improvement in the district. "This sum will not be ultimately lost to the State. "Actively stimulating the powerful principle of self-interest among "the agricultural body of the people, it will circulate in a thousand "channels to the augmentation of stock, the extension of culti- "vation, and the increase of food and population throughout the "country; and, annually accumulating in the hands of those whose "local knowledge, pursuits, and personal interest render them best "calculated to expend it with benefit to the country, it will bring "home to each inhabitant of these provinces advantages at present "unknown, while it may again be drawn into the coffers of the "State by raising the assessment to its present amount, so soon as "the increased wealth and prosperity of the people shall have ren- "dered that measure compatible with a continuance of progressive "improvement." The result of these appeals was the approval by Government of the reduction of 12 per cent. recommended by Mr. Græme, and though the remissions allowed by Mr. Cooke were generally in excess of this, the revenue of fasli 1230 did not fall off proportionately, as the favourable character of the season led to extended cultivation. The average remissions were—

Re-introduction of the ryotwári system, 1821.

The assessment reduced.

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EARLY BRITISH SETTLEMENTS.

The assessment reduced.

On punjai	$14\frac{1}{8}$	per cent.
On nanjai	$10\frac{13}{16}$	do.
On garden lands	$6\frac{11}{16}$	do.

but the amount varied in different taluks and villages. In Chittoor it was as much as $20\frac{3}{4}$ per cent., but in Arcot not more than $8\frac{1}{4}$ per cent., while in some villages it reached 50 per cent. The Board, however, disapproved of these discriminate remissions, and considered that the 12 per cent. reduction should be applied to the rates fixed by Mr. Græme in 1805, as those were settled by an experienced officer, after some years of ryotwári experience, whereas now, after a long series of years of leasing, the revenue officers had, as found by the Sub-Collector Mr. Chamier, lost much of their revenue experience. They directed, therefore, that a uniform and equal remission of 12 per cent. should be made on all assessments, instead of continuing the "arbitrary and undefined "mode in which the reduction of fasli 1231 was made." In this view the Government concurred, remarking that "any inequalities "in the assessment were probably the result of different degrees of "industry and capital employed, or were those accidental ones to "which all settlements are liable."

These instructions arrived too late to allow of the system being introduced in fasli 1232, but in the following year a uniform reduction of $12\frac{1}{2}$ per cent., or 2 annas in the rupee, was allowed. This proportion was chosen for the sake of its convenience in calculating the remission on each pattá.

The result of these concessions was, however, not such as was expected. The revenue continued to decrease—a circumstance attributed to the bad character of the seasons following the decennial lease. The season of fasli 1233 was very disastrous. Many cattle had died, and ryots had emigrated in great numbers. The succeeding year was marked by inadequate and untimely rains. Though fasli 1235 was more favourable, much land was left waste for want of persons to cultivate it; but fasli 1236 was unusually favourable, and the revenue rose very considerably.

A new survey.

In 1825 the Collector, Mr. Nisbet, expressed his opinion that the assessment was still too high, and recommended a further reduction of $6\frac{1}{4}$ per cent. in the northern taluks and 10 per cent. in the southern, not to be applied uniformly, but discriminately as in fasli 1231, according to the degree of over-assessment in different taluks or villages. The paimash rates he pronounced to be most unequal, and he proposed to correct them by giving remission up to 20 per cent. in some cases, and less in others, the average on the whole being brought up to $18\frac{3}{4}$.

He compared the average wet and dry assessments of this district with those of the neighbouring district of Chingleput.

—	North Arcot.	Chingleput.
	RS. A. P.	RS. A. P.
Dry	3 8 0	1 0 0
Wet	11 12 0	4 5 5

A general revision of the assessment was, Mr. Nisbet considered, urgently needed, and for this purpose he asked for a Special Assistant.

A new survey.

A similar measure had been urged for the southern taluks by Mr. H. Chamier, the Sub-Collector, immediately after the re-introduction of ryotwári system in 1822. The survey of these taluks had originally been made in a very imperfect manner. Only cultivated land had been surveyed, the inám and waste lands being left untouched. Even the measurements of cultivated lands were very roughly calculated, not by fields, but in extensive blocks, including nullahs, hillocks, and roads, and the consequence was that in many cases the accounts exhibited larger extents of land than ryots actually held.[11] Fields were unnumbered and undefined by any particular marks, so that it was almost impossible to identify them. During the periods of the leases, the karnams and renters had taken advantage of these ambiguities in the accounts, and had altered the classification of many fields, representing much of the best land to be of a low class, and raising inferior lands to a high class with the natural result of throwing the latter out of cultivation. Disputes regarding boundaries were of frequent occurrence, and a resurvey was, in Mr. Chamier's opinion, necessary "not "only for the security of the revenue, but for the security of the "peace and prevention of litigation." On May 17th, 1822, the resurvey was sanctioned. It began in fasli 1233, but its progress was repeatedly delayed. The direction of the Board that the

[11] On October 23rd, 1854, Mr. Bourdillon gave two examples of this, viz., the villages of Sakkiramallúr and Nandiyálam in the Arcot taluk. "In the former "out of an extent of Kánis 229 of wet land, shown in the accounts, there is no "more in reality than 182, leaving a deficiency of Kánis 47, or 20 per cent. The "assessment on the deficient land amounts to about Rs. 650. In Nandiyálam there "is a deficiency of Kánis 40, out of Kánis 167, or 23⅞ per cent., and the assessment "of the deficient land is about Rs. 500. If the whole of the land were cultivated "these large sums would have to be paid over and above the nominal assessment."

It appears from a report of Mr. Garrow that the South Arcot gunta was really one having a side of 23 feet, as Ráyoji measured it by 24 feet of the tallest man in the district, and threw in 2 feet for charity. Twenty-six of these feet = 23 English feet.

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standard should be such as could be readily converted into acres, led to the necessity of altering all the measuring chains from 24 to 33 feet. When this alteration was effected the unfavourable season of fasli 1233 occurred, and the work was impeded owing to the number of cultivators who had deserted from the southern taluks. In many places indeed it had to be stopped altogether until the proprietors returned.

A new survey.

The work was resumed in fasli 1236, and carried on to a considerable extent by Mr. Nisbet until he left the district. As far as it went it was a carefully executed piece of work. After the assessment was revised by the Collector's cutcherry it was submitted to pancháyats, and their objections were inquired into and disposed of. Every ryot was given an opportunity of pointing out how he was aggrieved, and Mr. Nisbet said that he "had "ultimately the satisfaction of receiving the assurance of every ryot "who took his pattá that he was satisfied."

Further reductions proposed by Mr. Roberts.

His successor, Mr. Roberts, reported on October 25th, 1827, that the measurement of 988 villages had been completed, the assessment settled in 954, and the work checked in 739; but he recommended a reduction of 10 per cent. on Mr. Nisbet's rates, and discontinued the survey until orders upon his recommendation should be passed. Mr. Nisbet's rates he pointed out were far higher than those in the Ceded Districts, and in some cases 25 per cent. higher than those fixed by Mr. Ravenshaw. He also criticised Mr. Græme's settlement of the northern taluks, pointing out several flaws in it. Taking one village as an example, he showed that the renters during the period of the leases had remitted upwards of 30 per cent. on the assessment of the highest class two-crop wet lands. All first-class one-crop land had been waste since fasli 1233, and most of the first and second class two-crop lands. He recommended a further reduction of 6 per cent. as necessary for the "reciprocal welfare of Government and ryots," and spoke of the "melancholy distress of the ryots, and the very deteriorated "state of the country, in comparison with its former prosperity."

Rejected by the Board.

It was not until 1830 that the Board found leisure to consider Mr. Roberts' reports. In that year they called for a large number of survey records, and recorded their opinion that the Collector had proceeded on entirely wrong principles in revising his predecessor's assessments. He had not proved the ill-effects of the discriminate remission, his plans were "crude and undigested, his "schemes founded on no definite principle, and palpably inex- "pedient," and they submitted to Government the question whether it was advisable, under these circumstances, to entrust the completion of the work to Mr. Roberts. Government replied, in 1832,

that Mr. Roberts would be moved to another department, and that as the survey and assessment required much local experience the question of re-assessment had better stand over. And so the subject dropped for a time.

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Decline of revenue and cultivation.

On February 16th, 1838, Mr. J. D. Bourdillon, then Sub-Collector, brought to notice the fact that a very large extent of the best land in the southern taluks remained waste. The revenues of the Southern Division had, he said, regularly diminished since the Company had been in charge of them. The extents of wet land cultivated had increased, but all the more highly assessed fields had been abandoned. There had been a steady decrease in the revenues of both northern and southern taluks, the difference in the northern taluks between fasli 1215 and the average of faslis 1245–47 being in—

	RS.	
Nanjai	80,000	and odd.
Punjai	70,000	,,
Tóttakkál	1,20,000	,,

In the southern taluks there were no accounts before the lease, but the difference between fasli 1232 and the average of faslis 1245–47 was in—

	RS.
Nanjai	1,70,900
Punjai	5,361
Tóttakkál	9,710

Revision of assessments proposed.

He attributed this mainly to the fact that there was in the southern taluks no distinction between the charge for one and two crops on wet land, as there was in the northern. "The highest class "lands were probably assessed for two crops and the lowest for one, "but this cannot be now distinguished, and so remission cannot be "given when second crop is not cultivated. Hence the higher class "land is given up, and the lower class cultivated with two crops "without any extra charge." He proposed that the assessment should be divided between the crops, two-thirds being assessed upon the first and one-third upon the second. But even this would not bring under cultivation the most highly rated fields, for which a reduction of assessment was urgently needed. They had never been cultivated, except during the times of the leases. After the conclusion of the decennial lease a remission of about 9½ per cent. was allowed in fasli 1231, and 8¾ per cent. in fasli 1232, but was discontinued in and after fasli 1233 in consequence of the survey.

Proposals pigeon-holed by the Board for sixteen years.

The Collector, Mr. Ogilvie, however, raised objections to Mr. Bourdillon's proposed treatment of a second crop on wet land, on the ground that the survey accounts did not distinguish between one and two crop land, and he recommended that the best remedy

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Proposals pigeon-holed by the Board for sixteen years.

for the declining prosperity of the southern taluks was the completion and introduction of Mr. Nisbet's survey, which had been partially completed. The assessment would produce an increase, but deducting 10 per cent., as recommended by Mr. Roberts, there would be a slight general remission in favour of the ryots, and he strongly urged the advisability of completing and introducing the survey with the 10 per cent. remission. Still nothing was done, though in 1840 the Board promised to submit their "matured "sentiments to Government at an early date." Early in 1842 Mr. Bourdillon succeeded to the charge of the district, and on September 3rd he again brought the subject to notice; but the Board delayed giving their sanction, as the best mode of conducting a survey was still under consideration. In 1853 Mr. Brett recommended the completion of the survey, as in his opinion the inequalities of the settlement of fasli 1215 were the chief causes of the decline of revenue in the southern taluks. In the succeeding year Mr. Bourdillon, the Collector, received orders from the Board to give immediate relief in cases where "the excessive pressure "of the assessment has tended to keep valuable lands permanently "out of cultivation, and to frame a scheme for a more general and "systematic revision of the reduction of assessment."

Further reductions of assessment, 1854.

Mr. Bourdillon was in this year removed to a seat in the Board, but before leaving the district he submitted his proposals in a letter, dated October 23rd, 1854. For affording immediate relief he had dealt with whole classes of land in order to avoid delay—an arrangement which in some cases led to the grant of remission to cultivated lands, and in others to the withholding of relief to fields which were waste; but on the whole great relief was afforded, until the more complete measure was matured. But little relief was granted to the northern taluks, owing to the greater industry of the ryots and the division of the assessment between two crops. Of the result of his arrangements he wrote: "About Rs. 18,000 of present revenue is given up, but in return "there is the reasonable prospect of a large accession of revenue "from the waste land subjected to the reduction. The total assess- "ment charged on that land, at the reduced rates, is Rs. 1,80,579, "being just ten times the amount of revenue now given up. The "whole of the land is now waste and unproductive, and supposing "that only half of it is brought under cultivation as a consequence "of the present reductions, there will be an increase of Rs. 90,000 "to set off against the loss of Rs. 18,000." To meet the complaint of deficiency in holdings in the southern taluks, Mr. Bourdillon ordered that Mr. Nisbet's survey should be adopted, in all villages in which it was complete, in the settlement of the current year.

"This measure will remove a standing grievance and a great deal "of discontent."

Further reductions of assessment, 1854.

As to the more general and systematic revision of the assessment, he remarked that "even assuming the quantity of produce, "and the commutation rate as fair, the burden of assessment has "been increased by the subsequent fall in the prices of grain." Excluding the taluks about the gháts, where it was less, this fall varied from 17 to 60 per cent. and was "not natural, resulting "from the cheapening of the processes of agriculture, or from a "lowering of the cost of bringing grain to market through improve- "ment of roads, or from increased skill obtaining heavier crops, "but rather from the non-increasing, and even diminishing demand "of the non-agricultural classes, and partly from the increase in "the value of silver." Not only was this disastrous to the ryot, but also to Government, for the revenues of many villages had fallen to a half, or even a third, of what they formerly were. "Whether "we look to the north or south a reduction of the assessment is "certainly necessary. We find extensive tracts of land waste, in- "cluding much of the very best quality, especially in the southern "taluks, and the chief cause certainly is the heavy pressure of the "Government tax; and though the fact that the assessment is so "heavy as to keep land out of cultivation, is a proof that it ought to "be reduced, the converse is far from being true, that where land is "cultivated the assessment must be moderate. There are villages "in which the owners of the land have become so utterly impover- "ished, that their whole land is mortgaged, and they now cul- "tivate for mortgagees who allow them just sufficient to maintain "them. In very many other cases the ryots have contracted their "holdings to what is just enough to give them the means of living, "and cultivate that, less for profit, than because they must do so or "starve, no other means being open to them to gain a livelihood."

As to the extent of reduction, he gave it as his opinion that 5 pagodas per káni for two crops was "as much as could be paid "regularly, on good land, well provided with irrigation, and not "remote from a market, if the owner is to receive more than a mere "subsistence," but, to be on the safe side, suggested that the highest rate for one crop should be Rs. 10 per káni, with an extra charge of Rs. 6-4-0 for a second crop. A total reduction of 30 per cent. all over the district was necessary on both cultivated and waste, this being an addition to the 12 per cent. already allowed in the northern taluks. The reduction was to be greater in the south than in the north, the difference being, however, partly equalised by the abolition of the teazgári remission, and the imposition of a second crop assessment in some cases. In no cases would less than 10 per cent. be deducted, so that thus the teazgári would disappear.

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Further reductions of assessment, 1854.

The punjai rates were more moderate, but the average cultivation of the last ten years was only one-third of the whole. Taking the cultivation of fasli 1262, the average assessment on the cultivated dry lands was Rs. 2–4–5 per káni in the northern, and Rs. 2–13–3 in the southern taluks, whereas in other districts it was—

	Per káni. RS.	A.	P.
In Bellary	0	14	7
In Cuddapah	1	1	0
In Coimbatore	1	0	6
In Salem	1	13	8
In Madura	1	12	5
In Tanjore	1	8	10

He proposed a reduction of 15 per cent., which would bring the average for North Arcot down to Rs. 1–14–0 per káni. That the temporary loss of revenue would be speedily made good seemed clear from the fact that already the rumour of the intended reductions had had the effect of causing much waste land to be ploughed, even in that year of drought, simply to secure an interest in it. "But even if there were less certainty that the "changes proposed would result in gain instead of loss, I should "still urge them. Revenue is not the only consideration. The "Government of a great country is not conducted wholly on the same "principles as a mercantile concern. The happiness and comfort, "the peaceableness and contentment of the people are also items in "the account, and in the present case they will add largely to the "profits of the venture. I have no hesitation in saying that the "changes now advocated, if carried into effect, will spread joy and "lightness of heart through the length and breadth of this province. "And not only that. It may fairly be expected that the increased "demand for labour, and its consequent better remuneration, "will have the effect of reclaiming to industrious and orderly "habits, classes who now live in a great measure by plunder, and "are a pest to society." Finally, Mr. Bourdillon recommended "that an instalment should be given in the form of a percentage "remission."

The Board, of which Mr. Bourdillon was now a member, approved of his proposal, and recommended a temporary reduction, until the scheme was worked out, of 25 per cent. (excluding the 12½ per cent. already allowed) on all lands in the Chittoor, Chendragiri, Tiruvalam and Satghur taluks, and in other taluks 12½ per cent. on all lands, but 18¾ per cent. on nanjai and tóttakkál bearing a higher assessment than Rs. 14. Government approved of these proposals, Mr. Bourdillon being then Secretary, and signing their proceedings.

As extra European aid was required to carry out the scheme for revising the assessment, Mr. George Banbury was, in 1855, appointed as an additional Sub-Collector for that purpose. In June 1856 his proposals for the northern taluks were ready. Wet assessments from Rs. 19–11–5 to Rs. 17–9–9 were brought down to Rs. 10, and similar reductions made for lower classes and for dry lands.

The new rates.

The rates per káni were as follows:—

Class.	Punjai.	Nanjai.	Class.	Punjai.	Nanjai.
	RS. A. P.	RS. A. P.		RS. A. P.	RS. A. P.
1	6 0 0	10 0 0	11	2 0 0	5 0 0
2	5 0 0	9 8 0	12	1 12 0	4 8 0
3	4 0 0	9 0 0	13	1 8 0	4 0 0
4	3 12 0	8 8 0	14	1 4 0	3 8 0
5	3 8 0	8 0 0	15	1 0 0	3 0 0
6	3 4 0	7 8 0	16	0 12 0	2 8 0
7	3 0 0	7 0 0	17	0 8 0	2 0 0
8	2 12 0	6 8 0	18	0 4 0	1 8 0
9	2 8 0	6 0 0	19	0 3 0	1 0 0
10	2 4 0	5 8 0	20	...	0 8 0

The first and second class of punjai consisted of garden lands irrigated by wells, or of *mánavári* lands, that is lands so low as to yield rice crops by aid of rain alone. The nanjai rates were for a single crop, 50 per cent. extra being charged for a second crop. The number of wet rates were by these means reduced from 141 to 20, and dry rates from 55 to 19. Eventually the three lowest wet assessments were raised to Rs. 2, which became the smallest sum paid for a káni of nanjai.

In the southern taluks it was found difficult to adopt Mr. Nisbet's classification as proposed by Mr. Bourdillon, and to separate double and single crop lands. Mr. Banbury, therefore, ascertained all the old rates, reduced the highest most, and grouped several into one. The highest charge for double crop wet land was Rs. 15, except in Pólúr and Wandiwash, which were more needy taluks, and in which the assessments were made one step lower, the highest double crop rates being Rs. 14. There were thirty wet rates, varying from Rs. 15 to Rs. 2, and thirty-seven dry rates, varying from 6 rupees to 3 annas.

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Effect on the revenue.

The reduction of assessment was carried into effect in fasli 1267, and the immediate result was a very considerable sacrifice of revenue, notwithstanding a great increase in the area of holdings. In fasli 1266 the occupied area amounted to 484,027 acres and the assessment to Rs. 20,74,373. The returns for the next fasli show an increase of 54,636 acres in the holdings and a decrease of nearly five and-a-half lakhs in the revenue. Prior to the reduction, however, remissions had been very freely granted, and if these be taken into account the loss of revenue was slightly under four lakhs of rupees. But the figures for single years do not afford trustworthy data for comparisons, and the following table shows clearly that the diminution in the demand due to the revision cf the rates was very soon recouped by the increased revenue obtained from the extension of cultivation, though some portion of the additional revenue must be ascribed to the growth of population :—

Faslis.		Average net demand.
	Before revision.	RS.
1262–66	.. ..	14,51,460
	After revision.	
1267–71	.. ..	14,85,531
1272–76	.. ..	16,64,197
1277–81	.. ..	16,03,560

The last period includes two famine years when the demand was only Rs. 12,57,355 and Rs. 14,04,970 respectively. The net demand in fasli 1281, the last year of the series, was over eighteen and-a-half lakhs.[12]

Further reductions in 1864.

In 1864 Mr. J. D. Robinson obtained sanction to allow a small further reduction upon the assessment of waste lands newly brought under the plough, the minimum assessment still being 2 rupees for wet and 3 annas for dry lands. The reductions were arranged thus—

Northern Taluks.

		RS.	A.		RS.	A.		RS.	A.
Wet assessments	between	10	0	and	8	0	reduced to	8	0
Do.	do.	8	0	,,	5	0	do.	5	0
Do.	do.	5	0	,,	3	0	do.	3	0
Do.	do.	3	0	,,	2	0	do.	2	0

[12] This paragraph on the effect of the revision upon the revenue has been re-written, as Mr. Cox's figures seemed of doubtful accuracy, and he made the mistake of taking fasli 1265 as the year in which the revised rates were introduced. The statistics now given are taken from Mr. Rundall's settlement report.—ED.

Further reductions in 1864.

Northern Taluks—cont.

		RS.	A.		RS.	A.		RS.	A.
Dry assessments	between	6	0	and	3	8	reduced to	3	8
Do.	do.	3	8	,,	2	0	do.	2	0
Do.	do.	2	0	,,	1	0	do.	1	0
Do.	do.	1	0	,,	0	8	do.	0	8
Do.	do.	0	8	,,	0	4	do.	0	4

Southern Taluks.

		RS.	A.		RS.	A.		RS.	A.
Wet assessments	between	15	0	and	11	0	reduced to	11	0
Do.	do.	11	0	,,	6	8	do.	6	8
Do.	do.	6	8	,,	4	4	do.	4	4
Do.	do.	4	4	,,	3	4	do.	3	4

Dry assessments as in the northern taluks.

These were known as the 'table rates.'

Inequalities still left.

Mr. Bourdillon's revision of the old unequal paimash rates was a measure eminently beneficial to the district, but it was only a temporary expedient and many inequalities were untouched by it, while some were even intensified. The revision benefited the highly assessed lands more than those of inferior quality, and it was moreover applied to all villages indiscriminately without regard to their special circumstances and without any consideration of the fairness of the existing assessments. Thus relief was often given where none was required, and hence it arose that, while many villages were still over-assessed, the rates in others were extraordinarily low. There can be little doubt, too, that the reduction on the lower class of dry lands was inadequate and that a considerable proportion of the inferior soils were unduly burdened when compared with those of higher productive power. Lastly the areas entered in the revenue accounts were of doubtful accuracy and in many cases fraud had been practised on the government. It was the object of the new settlement to redress these inequalities by a minute investigation of every holding, and to correct the errors in the area by a detailed scientific survey.

THE NEW SETTLEMENT. The survey.

The first step was a regular cadastral survey, by specially trained officers, of all Government and inám lands. The demarcation of fields was started in 1871, but the actual survey was commenced in 1872–73 and finished in 1879, progress having been greatly retarded by the suspension of work during the great famine. The survey showed that the total area of the Government and inám lands entered in the revenue accounts was only 1 per cent. less than the true area, but it must not be assumed from this that the old paimash of 1805 was unusually accurate. As a matter of fact it was extremely bad and the approximate identity in total area is merely accidental, for an examination of the details shows

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very large increases in one place and equally large decreases in another. Thus in Palmanér the total area according to the paimash was found to be 33 per cent. in excess of the true area, while in Vellore the paimash area was 36 per cent. less than that found by survey. The area in occupation, as given in the revenue accounts, was in every case less than the true extent, the total excess brought to light by the survey being 79,000 acres, or 13 per cent. In Chendragiri and Chittoor the proportion was 23 per cent., but in Gudiyáttam it was only 8 per cent., while in Vellore and Pólúr, the two taluks in which the total increase was highest, the excess in the occupied area was only 9 per cent., the high proportion in the aggregate being due to a large error in the area of poramboke or uncultivable lands, the extent of which was probably only estimated roughly at the time of the paimash. It is impossible to say how far the excess in the area in occupation was due to errors in the original measurement, and how far to encroachments by the holders. It should probably be ascribed to both causes, for if it were due to the latter alone the unoccupied assessed area would have been less than the true area instead of being in excess of it, as it is in most cases, though not in all. On the other hand there must have been some encroachment, for in every case the excess found in the unoccupied area is less than that discovered in the occupied fields. The following statement shows the percentage of variation in each taluk :—

Percentage of variation in area.

(Survey *minus* Paimash.)

Taluk.	Occupied.		Unoccupied.		Inám.		Poramboke.	Total.
	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.		
Arcot	+ 14	+ 13	+ 10	...	+ 10	+ 7	+ 11	+ 12
Chendragiri ...	+ 25	+ 19	+ 6	+ 4	+ 12	+ 6	+ 3	+ 5
Chittoor	+ 26	+ 17	+ 3	− 5	+ 11	+ 13	− 31	− 13
Gudiyáttam ...	+ 8	+ 7	+ 2	− 15	+ 2	− 3	− 2	+ 2
Palmanér	+ 15	+ 15	+ 1	+ 4	...	+ 11	− 41	− 33
Pólúr	+ 9	+ 10	− 5	+ 2	+ 8	+ 9	+ 57	+ 26
Vellore	+ 9	+ 9	+ 4	− 1	+ 6	+ 9	+ 65	+ 36
Wálájápet ...	+ 13	+ 8	...	− 11	+ 9	+ 5	− 12	+ 1
Wandiwash ...	+ 14	+ 13	+ 9	+ 1	+ 13	+ 11	+ 16	+ 13
TOTAL ...	+ 13	+ 11	+ 4	− 4	+ 8	+ 8	− 7	+ 1

The actual acreage figures for the district as a whole were as follows :—

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The survey.

—	Occupied.		Unoccupied.	
	Dry.	Wet.	Dry.	Wet.
1	2	3	4	5
	ACS.	ACS.	ACS.	ACS.
By Survey	464,145	241,910	400,505	20,377
By Paimash	409,366	217,660	386,087	21,246
Difference ...	+ 54,779	+ 24,250	+ 14,418	− 869
Percentage ...	+ 13	+ 11	+ 4	4

—	Inám.		Poramboke.	Total.
	Dry.	Wet.		
	6	7	8	9
	ACS.	ACS.	ACS.	ACS.
By Survey	84,283	38,563	1,182,422	2,432,205
By Paimash	78,390	35,844	1,265,297	2,413,890
Difference ...	+ 5,893	+ 2,719	− 82,875	+ 18,315
Percentage ...	+ 8	+ 8	− 7	+ 1

Classification of soils.

The work of settlement, as distinguished from that of survey, commenced with the classification of all cultivable land. This classification is carried out with reference to a standard table, which divides all land into classes in accordance with the physical characteristics of the soil; and each class is again sub-divided into five sorts according to its quality. The following abstract shows the results of this classification; the numbers given are those of the Settlement Department's standard table :—

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THE NEW SETTLEMENT.
Classification of soils.

Description of soils.	Class.	Sort.	Dry. Acres.	Dry. Percentage.	Wet. Acres.	Wet. Percentage.	Total. Acres.	Total. Percentage.
Exceptional series ...	II.	1	14	...	...	...	14	...
		2	131	...	...	...	131	...
		3	178	...	...	...	178	...
			323	**0·07**	...	...	**323**	**0·05**
Black clay ...	III.	1	72	...	1,627	...	1,699	...
		2	57	...	2,996	...	3,053	...
		3	214	...	3,284	...	3,498	...
		4	516	...	1,839	...	2,355	...
		5	79	...	805	...	884	...
			938	**0·20**	**10,551**	**4·36**	**11,489**	**1·63**
Black loam ...	IV.	1	2,874	...	3,610	...	6,484	...
		2	7,871	...	25,369	...	33,240	...
		3	9,052	...	42,626	...	51,678	...
		4	8,135	...	33,043	...	41,178	...
		5	4,671	...	13,499	...	18,170	...
			32,603	**7·03**	**118,147**	**48·78**	**150,750**	**21·35**
Black sand ...	V.	1	8,566	...	946	...	9,512	...
		2	9,306	...	930	...	10,236	...
		3	5,137	...	365	...	5,502	...
		4	2,373	...	1,964	...	4,337	...
		5	423	...	828	...	1,251	...
			25,805	**5·56**	**5,033**	**2·08**	**30,838**	**4·36**
Red loam ...	VII.	1	23,869	...	14,522	...	38,391	...
		2	58,248	...	34,630	...	92,878	...
		3	80,949	...	32,672	...	113,621	...
		4	32,305	...	14,307	...	46,612	...
		5	8,070	...	3,420	...	11,490	...
			203,441	**43·86**	**99,551**	**41·10**	**302,992**	**42·91**
Red sand ...	VIII.	1	32,544	...	1,675	...	34,219	...
		2	73,571	...	4,076	...	77,647	...
		3	69,006	...	2,334	...	71,340	...
		4	22,874	...	735	...	23,609	...
		5	2,734	...	116	...	2,850	...
			200,729	**43·28**	**8,936**	**3·68**	**209,665**	**29·70**
	TOTAL	...	**463,839**	**100**	**242,218**	**100**	**706,057**	**100**

The exceptional series given in the above table refers to land permanently improved by exceptional causes. The area, however, is very small, as improvements made by the occupant are not taken

Classification of soils.

into account. Mr. Rundall, the officer who prepared the settlement scheme, proposed that a much greater extent should be placed in this exceptional class, for he included a large area of land lying at the foot of the numerous small hill ranges and irrigated by means of wells in which the supply of water was, owing to their situation, of more than usual certainty and obtained with great facility. This superiority over ordinary lands irrigated by wells was, he contended, a natural element, not occasioned by the outlay incurred for the well or by any labour on the part of the occupant, and on this view he maintained that the State was entitled to share in the advantage. His proposals, however, were not accepted and the lands were classified in the ordinary way. Of the other two kinds of soil, the black variety is superior to the red, and of each series the loamy soils are the best. There is a considerable difference between the best and worst sort of each class, but the following table, which refers to the classes alone, gives a very fair idea of the relative value of the soils of the different taluks :—

Synopsis of Classification of Soils.

Taluk.	Percentage of soil in each class.						
	Black.				Red.		
	Clay.	Loam.	Sand.	Total.	Loam.	Sand.	Total.
Arcot	2·48	21·06	4·03	**27·57**	52·78	19·65	**72·43**
Chendragiri ...	...	42·50	9·74	**52·24**	19·20	28.56	**47·76**
Chittoor	0·16	25·12	1·58	**26·86**	21·75	51·39	**73·14**
Gudiyáttam ...	3·88	27·93	8·25	**40·06**	7·42	52·52	**59·94**
Palmanér ...	...	...	...	...	19·08	80·92	**100·00**
Pólúr	0·13	10·73	1·86	**12·72**	78·35	8·93	**87·28**
Vellore	1·86	9·61	1·66	**13·13**	77·99	8·88	**86·87**
Wálájápet ...	3·13	24·76	8·39	**36·28**	41·51	22·21	**63·72**
Wandiwash ...	0·23	27·44	2·82	**30·49**	38·35	31·16	**69·51**
TOTAL ...	**1·63**	**21·40**	**4·36**	**27·39**	**42·91**	**29·70**	**72·61**

NOTE.—The 'exceptional' soils are here shown as black loam.

Classification of villages.

A further graduation of productiveness is obtained by classifying villages, chiefly with reference to facilities for getting produce to market and the nature of the market, but the general character of the soils is also taken into account to some extent. Only two classes were found necessary, and the following table hows the classification in each taluk :—

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Classification of villages.

Classification of Villages.

Taluk.	First class.		Second class.	
	Number of villages.	Area (dry lands).	Number of villages.	Area (dry lands).
	NO.	ACRES.	NO.	ACRES.
Arcot	253	48,757	...	...
Chendragiri	...	...	53	11,176
Chittoor	...	...	139	39,644
Gudiyáttam	153	44,306	29	12,877
Palmanér	...	...	70	18,397
Pólúr	117	32,813	43	21,664
Vellore	149	46,819	...	...
Wálájápet	70	15,132	162	49,043
Wandiwash	281	68,951	...	...
TOTAL ...	1,023	256,778	496	152,801

Classes of irrigation.

This classification of villages applies only to dry lands. The reasons given for so restricting it are not very convincing, but in practice it is found that in the case of wet lands a sufficient degree of differentiation is obtained by the classification of the soils and the further classification of the sources of irrigation. The latter were divided into four groups according to the degree of certainty of the supply. The best river-fed tanks under anicuts were placed in the first class, river-channels, ordinary river-fed tanks and the best rain-fed tanks in the second, smaller rain-fed tanks and spring channels in the third, and small shallow tanks and indifferent drainage sources in the fourth class.

The result for the whole district was as follows :—

Description of source.	Number in each class.			
	First class.	Second class.	Third class.	Fourth class.
Anicut channels	7	12	4	...
River channels	2	326	83	28
Spring channels	5	154	145	17
Mountain streams	...	3	71	48
Tanks	98	593	1,201	979
Other minor sources	6	81	189	349
Dasabandam wells	...	16	69	33
Dasabandam tanks	...	1	2	4
Dasabandam channels	...	2	...	...
TOTAL ...	118	1,188	1,764	1,458

Classes of irrigation.

The first-class works are found chiefly in Wálájápet, Arcot and Chittoor, and consist mainly of tanks connected with the Pálár and Ponné anicut systems. Palmanér is, of all the taluks, the worst off as regards irrigation, for it has no sources in the first or second class and of a total of 678 no less than 610 are in the fourth group. Vellore, Pólúr and Wandiwash have no first-class sources, and the last has 245 out of 640 in the fourth class. In Chendragiri also there are no sources in the first class, but here there is a considerable number in the second class and many of these are almost as secure as the anicut channels.

The area, however, is more important than the number of works and the acreage under each class is shown for the different taluks in the following table. The statistics are those of land occupied at the time of the introduction of the settlement, but a small area under dasabandam wells is unavoidably omitted:—

Acreage under each class of Irrigation source.

Taluk.	First class.	Second class.	Third class.	Fourth class.
	ACS.	ACS.	ACS.	ACS.
Arcot	6,285	19,482	11,548	1,524
Chendragiri	...	3,228	1,663	151
Chittoor	1,147	8,530	6,311	792
Gudiyáttam	1,100	15,318	4,440	639
Palmanér	...	...	2,080	5,584
Pólúr	...	7,893	14,004	2,392
Vellore	...	8,224	6,429	780
Wálájápet	9,942	26,183	11,037	2,865
Wandiwash	...	13,641	18,764	5,336
TOTAL ...	**18,474**	**102,499**	**76,276**	**20,063**

Standard grains.

The soils having been classified, the grain value of each description had next to be ascertained. This was measured, in the case of wet lands, in paddy, which is by far the most important crop grown on such land. In dry lands a much greater variety of crops is found, those most largely grown being cumbu or sazza, ragi, varagu or aruga, oil-seeds (chiefly gingelly and castor) and horse-gram. It was necessary, however, to make the valuation in one or more of the food-grains, and the three food-crops mentioned above were, therefore, adopted and the remaining staples were classed under that one of these three with which, in mode of cultivation, outturn, &c., they most closely agreed. Thus oil-seeds

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Standard grains.

and indigo were included with ragi, horse-gram with varagu, and cholum and pulses with cumbu. It was then found that the area under cumbu, ragi and varagu, as thus modified, was approximately the same, and accordingly these three grains were taken in equal proportions in estimating the value of dry lands; but for the 323 acres that were classed in the exceptional series cumbu and ragi alone were taken, as the poorer crops, which are represented by varagu, are not grown on such soils.

Grain values—*Wet crops.*

To determine the grain values or yield per acre a number of experiments were made. In the case of paddy the average outturn per acre was found to be 1,346 Madras measures in Chendragiri, 1,192 Madras measures in Chittoor, 999 in Gudiyáttam and 864 in Wálájápet, or an average for the four taluks of 1,159 measures, equivalent to 2,608 pounds. This is the average for all classes of soil and all kinds of crops from good to indifferent. For the best black loam the average of 214 measurements gave an outturn of no less than 1,479 Madras measures, or about a ton and-a-half. This is a very high yield and is largely due to the excellent crops obtained in Chendragiri and Chittoor, where there is a considerable extent of superior soil and where the agricultural practice is better than that found in most districts. To be on the safe side, however, a very considerable deduction was made and the outturn of the best soil under the best class of irrigation was fixed at only 1,200 Madras measures. With this as a maximum the following scale for all sorts of wet land was obtained:—

Scale of grain values in Madras measures of paddy per acre.

Class and 'sort' of soil.*					Class of irrigation source.			
III.	IV.	V.	VII.	VIII.	First.	Second.	Third.	Fourth.
					Grain values.			
...	1	...	...	...	1,200	1,150	1,100	1,050
1	2	...	1	...	1,100	1,050	1,000	960
2	3	1	2	1	1,000	950	900	850
3	4	2	3	2	865	820	775	730
4	5	3	4	3	775	730	690	650
5	...	4	5	4	680	640	600	570
...	...	5	...	5	590	550	550	500

* For an explanation of the numbers denoting the class and sort of soil see page 153.

These values are on the whole "in excess of those assigned "in districts previously settled, notwithstanding that they are "adjusted considerably below the average outturn ascertained by

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"numerous experiments conducted during several years, which "has rarely been the case in any other settlement."[13]

Grain values—*Dry crops.*

The yield of dry crops was determined upon a much smaller number of experiments. In the case of ragi the experiments were admittedly insufficient, and the yield was fixed with reference to the relation generally found to obtain between this crop and cumbu. The table of grain values adopted was as follows :—

Table of grain values in Madras measures per acre.

Class and 'sort' of soil.*					Grain values for each class of village.					
					Cumbu.		Ragi.		Varagu.	
III.	IV.	V.	VII.	VIII.	First.	Second.	First.	Second.	First.	Second.
1	1	...	...	...	340	290	360	310	480	400
2	2	...	1	...	290	250	310	275	400	330
3	3	1	2	1	250	220	275	240	330	280
4	4	2	3	2	220	180	240	200	280	230
5	5	3	4	3	180	150	200	165	230	180
...	...	4	5	4	150	130	165	135	180	160
...	...	5	...	5	130	115	135	120	160	140

* For an explanation of the numbers denoting the class and sort of soil see page 153.

In the case of the 'exceptional series' lands, a nominal value was assigned, varying from 360 to 300 measures of cumbu and from 390 to 320 measures of ragi. Compared with the valuation in other districts the grain values for the dry lands are on the whole moderate and may be accepted with confidence.

Commutation prices.

The grain values arrived at in the manner described above were next commuted into money, the commutation rate being based upon the average price of the district during the twenty

[13] Settlement Report, para. 91 [G.O., 6th April 1881, No. 591, Rev.]. This report was drawn up by the late Mr. C. Rundall, one of the most experienced and careful officers of the Settlement Department. As regards the high average yield in North Arcot, he wrote: "There is no doubt as to the returns [of "outturn], as the experiments I made, and also those undertaken by the Assistant "Director, gave similar results" (para. 88). In Cuddapah the maximum value assigned was 1,300 Madras measures, and in both Tinnevelly and Coimbatore it was 1,200, but in all these districts the range of the scale was considerably wider than in North Arcot and the minimum appreciably lower. In Chingleput and Salem it was much lower still, and it is difficult to believe that such great differences can be real. The matter is not of much importance so far as the present settlement of North Arcot is concerned, for the commutation price adopted was so low that the money rates are light, but when a new commutation price is applied to these values the resulting rates may be found to be excessive.

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years, 1845–46 to 1864–65. There are two records of these prices, one compiled in the district and the other in the office of the Board of Revenue. The former is unfortunately far from complete for the first decade, and even for the second decade the average price compiled from the district returns differs from that published by the Board. It is not clear how the latter was arrived at, and Mr. Rundall, therefore, adopted the district price for the second decade. To obtain the district price for the first decade, he assumed that it bore the same relation to the Board's price as was found to exist between these two figures for the second period. The average prices thus arrived at, however, were those for the whole period, whereas the average required is that for the ryots' selling months.[14] In the case of paddy the average price of the twenty years was only 1 rupee per garce (3,200 Madras measures) in excess of the average for the ryots' selling months during that period. But for the ten years, 1865–66 to 1874–75, the difference was Rs. 6 per garce and Mr. Rundall accordingly adopted this figure. For cumbu the difference during the twenty years was Rs. 13 per garce, while in the next decade it was Rs. 17, but Mr. Rundall considered that the lower figure might be accepted. For ragi the average price was actually higher for the selling months than for the period as a whole, and even in the later decade there was a difference of only 1 rupee per garce. No deduction, therefore, was made in this case. Varagu does not appear in the Board's price lists, and the district returns were considered by Mr. Rundall to be grossly inaccurate, as the price of this, the cheapest of all grains, was frequently shown as higher than that of paddy.[15] Excluding all such excessive entries, an average of Rs. 90 per garce was obtained and an arbitrary deduction of Rs. 7 was made for the difference between this average and that of the ryots' selling months. The prices of the returns

[14] The first crop of paddy is generally sold during January and February, the second crop in April and May; cumbu in September and October; ragi in January and February; and varagu in November and December.

[15] This relation between the prices of the two grains was also found in the decade 1865–66 to 1874–75, when the average for varagu was Rs. 172 the garce, while that for paddy was only Rs. 152. I have examined the statistics for more recent years and find that, in fasli 1296, the price of varagu was Rs. 198, the garce and paddy (first and second sorts combined) only Rs. 130. In the following year varagu was Rs. 131 and paddy Rs. 125. Nor is it only in North Arcot that varagu is dearer than paddy, for in fasli 1296 it was the case in Gódávari, Kistna, Madras, Chingleput and Coimbatore also. Some doubt is thrown on the returns by the enormous range of the prices. Thus in fasli 1296 the average price of varagu varied from Rs. 71 per garce in Tanjore and Rs. 85 in South Arcot to Rs. 243 in Chingleput, and Rs. 250 in Madras. In fasli 1300 the range was from Rs. 99 in Cuddapah to Rs. 373 in Chingleput.

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are those of market towns, whereas the ryot frequently sells his produce in his village, and if he does not do so he has to bear the cost of transporting it to the market. To meet this difference a further deduction of 10 per cent. was allowed.

Commutation prices.

The calculation of the commutation price is shown briefly in the following table :—

—	In rupees per garce.			
	Paddy.	Cumbu.	Ragi.	Varagu.
	RS.	RS.	RS.	RS.
Average district price (adjusted)	111 *	141	140	90
Deduct difference for ryots' selling months	6	13	...	7
Remainder ...	105	128	140	83
Deduct 10 per cent. for difference between ryots' and market price	10·5	12·8	14	8·3
Remainder ...	94·5	115·2	126·0	74·7
Figure adopted as commutation price	95	115	126	75

* This is the arithmetical mean of the average prices for first and second sort paddy.

Expenses of cultivation.

Having now obtained the gross outturn, the next step is to arrive at the net yield by deducting the cost of cultivation. Regarding the calculation of this, Mr. Rundall wrote as follows :—

" These details have been estimated on the basis of information " recorded for certain selected villages of the four taluks by the " Supervisor Attota Rámayya, the Assistant Director Mr. Clerk, " and myself. In dry land an average of 7 to 8 acres to each " plough according to the quality of the soil is accepted, and " the average cost of a pair of bullocks is taken as Rs. 37–8–0 in " the better and Rs. 27–8–0 in the poorer soils. Similarly, for wet " cultivation, it is reckoned that a pair of bullocks will plough four " acres of single-crop land, or an equivalent area of land partly first " and partly second crop. The latter is most general, and the esti- " mated expenses relate to one crop only. Working cattle are set " down as costing from Rs. 36 to Rs. 29 the pair, at prices varying " from Rs. 50 to Rs. 25, including one-fourth as buffaloes at Rs. 20. " The bullocks and buffaloes are calculated to work for six and five " years, respectively, on the average. The estimated cost thus " resulting per acre for each standard dry crop and for paddy is as

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Expenses of cultivation.

"follows. Straw, which is a valuable commodity in this district, "is not taken into account in these calculations. No provision is "made for feeding the working cattle with gram, as they are not "fed with gram or other grain, as a rule, in this district."

The amounts thus arrived at for cultivating an acre with each of the standard grain crops are as shown below, the expenditure varying with the nature of the soil:—

Cost of	Paddy		Cumbu	
	From	To	From	To
1	2	3	4	5
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Bullocks	1 12 0	1 4 0	0 14 0	0 8 0
Implements	0 14 0	0 10 0	0 7 0	0 5 0
Manure	2 8 0	1 4 0	0 8 0	...
Seed	0 14 0	0 12 0	0 1 9	0 1 3
Wages and labour ...	6 3 0	4 2 0	2 8 3	1 11 0
TOTAL ...	**12 3 0**	**8 0 0**	**4 7 0**	**2 9 3**

Cost of	Ragi		Varagu	
	From	To	From	To
	6	7	8	9
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Bullocks	0 14 0	0 8 0	0 14 0	0 8 0
Implements	0 7 0	0 5 0	0 7 0	0 5 0
Manure	0 8 0	...	None.	
Seed	0 2 8	0 2 0	0 3 4	0 2 6
Wages and labour ...	2 7 0	1 10 0	1 14 0	1 4 2
TOTAL ...	**4 6 8**	**2 9 0**	**3 6 4**	**2 3 8**

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Expenses of cultivation.

Ordinary dry lands were valued on the assumption that they are cultivated equally with each of the three standard crops, and the cultivation expenses of these crops must, therefore, be taken in equal proportions. They vary, therefore, from Rs. 4–1–4 to Rs. 2–7–4 per acre, [16] and compared with most districts these are somewhat low. The cultivation expenses of paddy, on the other hand, are above the average. Mr. Rundall points out that they would be higher still but for the low commutation price adopted for paddy; most of the wages are paid in this grain, and in converting the quantity into money, the commutation price of Rs. 95 per garce has been adopted.

Allowance for vicissitudes of season.

Although the yields of each crop, which have been taken for the calculation of the grain values, are based upon the average of all kinds of harvests, good, middling and indifferent, yet a further correction is made in favour of the ryot by a deduction of 20 per cent. from the assigned grain value to meet vicissitudes of the season. There can be little doubt that no such deduction is required on the ground put forward for it, for in really bad years remission of assessment is freely given, and the variations in ordinary seasons are fairly provided for in calculating the grain values. But no allowance is made for the fallowing of lands, and if this deduction is regarded as a remission on that ground, its justice may be conceded in the case of dry lands. Wet lands, however, are very seldom left fallow, and the necessity for the concession in their case is open to criticism.

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[16] The lands classed in the exceptional series were valued in equal proportions of cumbu and ragi. The cultivation expenses of these are put at Rs. 4–6–10 per acre.

Calculation of Rates of Assessment—DRY LANDS.

Class and 'sort' of soil.						Commuted grain value per acre.	Deductions.			Net value.	Half net.	Settlement rate.
II.	III.	IV.	V.	VII.	VIII.		One-fifth for vicissitudes of season.	Cultivation expenses.	Total.			
						RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
1	...	...	...	...	...	14 2 5	2 13 3	4 6 10	7 4 1	6 14 4	3 7 2	**3 8 0**
2	...	...	...	...	...	13 3 2	2 10 2	4 6 10	7 1 0	6 2 2	3 1 1	**3 0 0**
3	...	...	...	...	...	11 11 1	2 5 5	4 6 10	6 12 3	4 14 10	2 7 5	**2 8 0**
...	1	1	...	...	...	12 8 9	2 8 2	4 1 4	6 9 6	5 15 3	2 15 7	**3 0 0**
...	2	2	...	1	...	10 10 8	2 2 1	4 1 4	6 3 5	4 7 3	2 3 7	**2 4 0**
...	3	3	1	2	1	9 2 11	1 13 5	3 14 6	5 11 11	3 7 0	1 11 6	**1 12 0**
...	4	4	2	3	2	7 15 7	1 9 6	3 10 5	5 3 11	2 11 8	1 5 10	**1 6 0**
...	5	5	3	4	3	6 9 3	1 5 0	3 4 6	4 9 6	1 15 9	0 15 10	**1 0 0**
...	...	...	4	5	4	5 5 11	1 1 2	2 13 8	3 14 10	1 7 1	0 11 6	**0 12 0**
...	...	...	5	...	5	4 9 3	0 14 8	2 9 6	3 8 2	1 1 1	0 8 6	**0 8 0**

NOTE.—This table is for villages in the first class. In the case of lands in class II (exceptional series), the rates are the same in second-class villages as in first, but for other lands the first-class scale is lowered by one rate throughout. Thus the maximum rate (that for soils of the first sort of classes III and IV) is Rs. 2-4-0, and an additional rate of 6 annas is introduced at the bottom for the worst soils.

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—
Rates of assessment—Wet lands.

Calculation of Rates of Assessment—WET LANDS.

Class and 'sort' of soil.					Grain produce.	Value.	Deductions.			Net value.	Half net.	Settlement rate.
III.	IV.	V.	VII.	VIII.			One-fifth for vicissitudes of season.	Cultivation expenses.	Total.			
1	2	3	4	5	6	7	8	9	10	11	12	13
					FIRST-CLASS IRRIGATION SOURCES.'							
					M.M.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
...	1	...	...	...	1,200	35 10 0	7 2 0	12 3 0	19 5 0	16 5 0	8 2 6	**8 0 0**
1	2	...	1	...	1,100	32 10 6	6 8 6	11 15 6	18 8 0	14 2 6	7 1 3	**7 0 0**
2	3	1	2	1	1,000	29 11 0	5 15 0	11 5 5	17 4 5	12 6 7	6 3 3	**6 0 0**
3	4	2	3	2	865	25 10 10	5 2 2	9 15 11	15 2 1	10 8 9	5 4 4	**5 4 0**
4	5	3	4	3	775	23 0 0	4 9 7	9 5 0	13 14 7	9 1 5	4 8 8	**4 8 0**
5	...	4	5	4	680	20 3 0	4 0 7	8 8 0	12 8 7	7 10 5	3 13 2	**3 12 0**
...	...	5	...	5	590	17 8 3	3 8 0	8 0 0	11 8 0	6 0 3	3 0 2	**3 0 0**
					SECOND-CLASS IRRIGATION SOURCES.							
...	1	...	...	...	1,150	34 2 3	6 13 3	12 3 0	19 0 3	15 2 0	7 9 0	**7 8 0**
1	2	...	1	...	1,050	31 2 9	6 3 9	11 15 6	18 3 3	12 15 6	6 7 9	**6 8 0**
2	3	1	2	1	950	28 3 3	5 10 3	11 5 5	16 15 8	11 3 7	5 9 9	**5 8 0**
3	4	2	3	2	820	24 5 6	4 13 11	9 15 11	14 13 10	9 7 8	4 11 10	**4 12 0**
4	5	3	4	3	730	21 10 9	4 5 4	9 5 0	13 10 4	8 0 5	4 0 2	**4 0 0**
5	...	4	5	4	640	19 0 0	3 12 10	8 8 0	12 4 10	6 11 2	3 5 7	**3 4 0**
...	...	5	...	5	550	16 5 3	3 4 3	8 0 0	11 4 3	5 1 0	2 8 6	**2 8 0**

Rates of assessment—Wet lands.

Calculation of Rates of Assessment—Wet lands—cont.

Class and 'sort' of soil.					Grain produce.	Value.	Deductions.			Net value.	Half net.	Settlement rate.
III.	IV.	V.	VII.	VIII.			One-fifth for vicissitudes of season.	Cultivation expenses.	Total.			
1	2	3	4	5	6	7	8	9	10	11	12	13
						Third-class Irrigation Sources.						
					M.M.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
...	1	...	...	...	1,100	32 10 6	6 8 6	12 3 0	18 11 6	13 15 0	6 15 6	**7 0 0**
1	2	...	1	...	1,000	29 11 0	5 15 0	11 15 6	17 14 6	11 12 6	5 14 3	**6 0 0**
2	3	1	2	1	900	26 11 6	5 5 6	11 5 5	16 10 11	10 0 7	5 0 3	**5 0 0**
3	4	2	3	2	775	23 0 0	4 9 7	9 15 11	14 9 6	8 6 6	4 3 3	**4 4 0**
4	5	3	4	3	690	20 7 9	4 1 7	9 5 0	13 6 7	7 1 2	3 8 7	**3 8 0**
5	...	4	5	4	600	17 13 0	3 9 0	8 8 0	12 1 0	5 12 0	2 14 0	**3 0 0**
...	...	5	...	5	550	16 5 3	3 4 3	8 0 0	11 4 3	5 1 0	2 8 6	**2 8 0**
						Fourth-class Irrigation Sources.						
...	1	...	...	...	1,050	31 2 9	6 3 9	12 3 0	18 6 9	12 12 0	6 6 0	**6 8 0**
1	2	...	1	...	960	28 8 0	5 11 2	11 15 6	17 10 8	10 13 4	5 6 8	**5 8 0**
2	3	1	2	1	850	25 3 9	5 0 9	11 5 5	16 6 2	8 13 7	4 6 9	**4 8 0**
3	4	2	3	2	730	21 10 9	4 5 4	9 15 11	14 5 3	7 5 6	3 10 9	**3 12 0**
4	5	3	4	3	650	19 4 9	3 13 9	9 5 0	13 2 9	6 2 0	3 1 0	**3 0 0**
5	...	4	5	4	570	16 14 9	3 6 2	8 8 0	11 14 2	5 0 7	2 8 3	**2 8 0**
...	...	5	...	5	500	14 13 6	2 15 6	8 0 0	10 15 6	3 14 0	1 15 0	**2 0 0**

CHAP. III.
THE NEW SETTLEMENT.

Money rates.

The money rates of assessment can now be deduced, and the annexed tables give particulars for each class of land. Compared with other districts the rates are moderate on the whole, and the maximum wet rate of Rs. 8 an acre must certainly be considered a very light assessment. The inferior soils have, perhaps, been less leniently treated, and the average rates for the district, in the case of both dry and wet lands, exceed the average rates for the Presidency as a whole. Owing, however, to the low commutation prices adopted, the new assessment has, from its introduction, been considerably less than the half of the net produce which it is supposed to represent and it has been paid without difficulty.[17]

Average rates.

The distribution of the assessment over the land, the real incidence in fact, is well brought out by the following abstract of the area under each rate. The figures given represent the occupied area at the time of the introduction of the settlement :

Dry lands.		Wet lands.			
Rate.	Area.	Rate.	Area.	Rate.	Area.
RS. A. P.	ACS.	RS. A. P.	ACS.	RS. A. P.	ACS.
3 8 0	14	8 0 0	282	4 8 0	11,374
3 0 0	1,571	7 8 0	2,454	4 4 0	25,263
2 8 0	178	7 0 0	2,769	4 0 0	15,331
2 4 0	20,598	6 8 0	20,208	3 12 0	9,529
1 12 0	78,957	6 0 0	21,929	3 8 0	9,678
1 6 0	147,209	5 8 0	40,330	3 4 0	3,599
1 0 0	139,474	5 4 0	7,117	3 0 0	5,330
0 12 0	60,205	5 0 0	32,016	2 8 0	1,136
0 8 0	14,731	4 12 0	33,196	2 0 0	84
0 6 0	1,172				
TOTAL ...	464,109			TOTAL ...	241,625

Of the dry lands only 1,763 acres or 0·37 per cent. were assessed at rates above Rs. 2–4–0 per acre; considerably more than half the total—286,683 acres or 61·7 per cent.—were rated at Rs. 1–6–0 or Re. 1–0–0 an acre; 99,555 acres or 21·4 per cent. were assessed at Rs. 2–4–0 or Rs. 1–12–0 an acre, and the remainder, 76,108 acres or 16·41 per cent., at less than 1 rupee. The average rate is Rs. 1–4–2 per acre, while the old assessment gave an average of Rs. 1–4–9 on the survey area, and Rs. 1–7–7 on the paimash area. The wet rates number eighteen and range from Rs. 2 to Rs. 8, but only 282 acres are assessed at the highest rate and only 5,505 acres or 2·3 per cent. bear rates exceeding

[17] The relation between recent prices and the commutation rates is discussed in chap. iv. of vol. ii.

CHAP. III. THE NEW SETTLEMENT.

Average rates.

Rs. 6–8–0. The bulk of the area (about 86 per cent.) is assessed at rates varying from Rs. 4–0–0 to Rs. 6–8–0, and the remaining 12 per cent. at rates below Rs. 4–0–0. The average is Rs. 4–15–2, but if the assessment for a second crop be included, the average is Rs. 5–8–0.

Increase of revenue.

The settlement raised the total land revenue of the district by 5 per cent., but this was compounded of an increase of 10 per cent. in the assessment on wet lands and a decrease of 3 per cent. in that on dry lands. The rate of variation differed a good deal in different taluks and the figures for each are accordingly given below:—

Percentage of variation in area and assessment.

(Settlement *minus* Paimash.)

Taluk.	Dry lands.		Wet lands.	
	Area.	Assessment.	Area.	Assessment.
	PER CENT.	PER CENT.	PER CENT.	PER CENT.
Arcot	+ 14	− 4	+ 13	+ 4
Chendragiri	+ 25	− 10	+ 19	+ 27
Chittoor	+ 26	− 1	+ 17	+ 25
Gudiyáttam	+ 8	− 4	+ 7	+ 11
Palmanér	+ 15	− 20	+ 15	+ 13
Pólúr	+ 9	+ 6	+ 10	+ 2
Vellore	+ 9	− 7	+ 9	+ 4
Wálájápet	+ 13	− 1	+ 8	+ 6
Wandiwash	+ 14	− 1	+ 13	+ 6
TOTAL ...	**+ 13**	**− 3**	**+ 11**	**+ 10**

There was a great increase in the assessment of the Chendragiri and Chittoor wet lands and the average rates are higher in those taluks than in any other. The crop experiments which have been referred to above showed, however, that the outturn of paddy was much higher there than elsewhere, and there can be no doubt that the lands are generally more fertile. There was a considerable increase in the wet assessment of Palmanér also, but that taluk still has the lowest average wet rate of all. It has been leniently treated in the assessment of its dry lands, the revenue having been reduced by 20 per cent.

Duration of the settlement.

This settlement is to continue for a period of thirty years, when it will be liable to revision with reference to the variation in prices, but no extra assessment will be imposed on account of any improvements made by the ryots. In other words, the grain values of the current settlement will remain unaltered, but a new commutation rate, based upon more recent prices, will be applied to them.

CHAP. III. THE NEW SETTLEMENT.

Duration of the settlement.

The years in which the settlement was introduced in each taluk are shown below :—

Taluk.	Fasli in which new rates were introduced.	Taluk.	Fasli in which new rates were introduced.
Chendragiri	1293	Arcot	1292
Chittoor	1293	Vellore	1293
Palmanér	1294	Pólúr	1294
Gudiyáttam	1293	Wandiwash	1295
Wálájápet	1291		

Officers who made the settlement.

The settlement was made upon a scheme prepared by Mr. Charles Rundall for the taluks of Chendragiri, Chittoor, Gudiyáttam and Wálájápet, which are fairly typical of the whole district. This scheme was sanctioned by the Government in 1881, and it was carried into effect by Mr. J. H. M. Cox in Chendragiri and Chittoor, Mr. G. P. Clerk in Palmanér, Gudiyáttam, Wálájápet, Arcot, and Pólúr, Dewan Bahadur J. Lakshmíkánta Rao in Vellore and M.R.Ry. S. Rangá Cháriar in Wandiwash.

Cost of survey and settlement.

The total cost of the survey and settlement was Rs. 17,34,393. The immediate increase of revenue obtained was about Rs. 96,000, or about 5½ per cent. on the outlay. The operations, however, must not be viewed as a commercial transaction, for this was in no sense their object. They were undertaken in order to place the assessment of the land revenue on a just and equal basis, to remove all excessive and anomalous rates, and by a detailed record of rights and liabilities to prevent fraud and facilitate the administration. That the assessments are not mathematically accurate in every individual instance, will be readily admitted, but there can be no doubt that the above objects have been very generally attained, and that the settlement is, on the whole, both more equal and more lenient than any that preceded it.

	Cost.
	RS.
Demarcation	2,83,756
Survey	6,88,385
Settlement	7,62,252
TOTAL ...	17,34,393

Double-crop assessment.

Prior to the introduction of the new settlement, the treatment of second-crop assessment was different in the northern and southern portions of the district. In the former, the practice was to levy a charge only when a second crop was actually cultivated ; this

ERRATUM.

In the last paragraph on page 168, *omit all the words after* "liable to revision."

CHAP. III. THE NEW SETTLEMENT.

Double-crop assessment.

'double crop' was assessed at one and-a-half times the ordinary assessment and this is payable whether a second crop is grown or not, provided that the land was not left waste owing to failure of water or other natural cause beyond the ryot's control. Ordinary or 'single crop' wet land is charged 50 per cent. extra when a second crop is grown, but holders of such land had the option at the time of the settlement of compounding for the second crop charge, the annual additional payment being from one-third to one-fifth of the first crop charge according to the nature of the irrigation source and the certainty of supply.

Wells.

At the time of the survey of 1805, all wells seem to have been regarded as the property of Government and to have been entered as a Government source of irrigation, the ryot's share of the produce raised under them being taken as two-thirds. These were more favourable terms than those given to ordinary wet lands irrigated from tanks or streams, but the advantage was not sufficient, for the number of wells did not increase until, within a few years, the Collector granted dry lands on permanent dry rates to ryots who sunk wells and raised wet or garden crops. By this means nearly 2,500 acres were, by 1814, newly brought under such cultivation. The assessment upon lands under old wells however was continued until 1854, the rates per káni being—

	Maximum.			Minimum.		
	RS.	A.	P.	RS.	A.	P.
Northern Division	38	8	0	5	4	0
Southern do.	52	8	0	5	4	0

The southern division rate was a consolidated double crop charge.

In 1854 the rates were reduced to—

	Maximum.			Minimum.		
	RS.	A.	P.	RS.	A.	P.
Northern Division	15	12	0	3	8	0
Southern do.	17	8	0	3	8	0

and in 1857 the maximum charge throughout the district was reduced to Rs. 6.

Pattadapác'chal, or wet land under wells, was originally assessed more lightly than other lands, the highest rates in the northern and southern taluks being Rs. 16–13–6 and Rs. 35–5–3 (for double crop) respectively. At the revision of the assessments these rates were reduced to Rs. 8–8–0 in the one case, and Rs. 13 in the other, but Government considered that further relief should be extended to these remote investments of capital, and ordered that no charge should be made for a second crop. The order could not be carried out in the southern taluks, and even in the northern ones it was taken to apply only to modern wells, or to old ones

clearly proved to be the property of the ryot, which virtually excluded all old wells. In 1865 Mr. Robinson recommended the transfer of all well nanjai to the highest punjai rate (Rs. 6), except where the wells were situated in the bed of a tank, or in wet lands which were their *raison d'être*, and they were merely ancillary sources of irrigation. This was approved, with the proviso that in special cases tank-bed wells might be recommended for favourable treatment.

Wells.

On the introduction of the new settlement all lands dependent for irrigation solely upon wells were treated as dry lands, and the highest rate of assessment thus became Rs. 3-8-0. In passing orders on Mr. Rundall's proposals the Government expressly stated that the treatment of well lands as dry was "a standing principle, which should on no account be deemed open to discussion." The result of this liberal policy has been an enormous increase in the number of wells.

Tóttakkál or garden lands.

At the time of paimash the ryot's share of the produce of lands carrying a garden crop was fixed at 75 per cent., but this made the assessments very heavy, and they went as high as Rs. 49 per káni, or Rs. 36 per acre, with the result of almost all the highest classes being left waste. In 1854 it was found that 72 per cent. of lands bearing an assessment above Rs. 31-8-0, and 63 per cent. of those above Rs. 21, were waste. Temporary relief was granted in 1854, and in 1857 lands under tanks and channels were classed as nanjai, while others were brought under the higher punjai rates. This mode of dealing with them was continued at the new settlement.

Dasabandam tenures.

The Muhammadan Government of the Carnatic very generally granted a portion of the irrigated area under tanks and channels, upon what was termed a dasabandam tenure, particularly in the Chittoor and Chendragiri taluks. By this the burden of keeping those sources of irrigation in repair was transferred to the dasabandam inámdár who was granted, originally a tenth of the ayacut, but latterly more. After the cession this arrangement was extended, and a quarter of the ayacut under tanks, or a fifth under channels, was the amount allowed, a proportional charge being imposed on the inám in the event of the cultivation falling short. In 1817 the rules were applied to those who undertook the construction of new tanks or channels, but little advantage appears to have been taken of the concession. The system was abandoned in 1844, and many ináms have since then been gradually resumed upon default of the inámdárs to fulfil the conditions of the grant; but Mr. Rundall states that he found dasabandam works generally in as good repair as corresponding Government works.

CHAP. III.
THE NEW SETTLEMENT.

Dasabandam tenures.

Two special kinds of dasabandam tenures should be mentioned, viz., *chavutáyi* and *valavádi*. A chavutáyi dasabandamdár received, not a grant of land but a portion—one-fourth, as the name implies—of the assessment paid on the ayacut. A valavádi dasabandamdár was granted the whole ayacut at a favourable rate of assessment. All these tenures were respected at the time of settlement.

Service ináms.

The number of village servants found at the cession was very great, including many now obsolete, such as the snake-doctor, head shepherd, head and assistant merchant and others. They were remunerated by mániams and méra. The former were grants of land of two kinds, *tarapadi* and *dámáshai*. The first consisted of a definite grant of land and the other of one-eleventh part of the village cultivation, except garden lands. These were divided, in certain proportions, among the various village servants.

In all but 84 villages the *méras* of the monigar, karnam and shroff were commuted into cash at rates which varied greatly in different villages. The amount so fixed was included in the Government demand and the payee was allowed to deduct the sum from the revenue payable by any ryot or ryots whom he might select subject to the approval of the Collector. In the remaining 84 villages, and in the case of the taliári, the vetti or tóti and the nírganti or nírkatti in all villages, the servants collected the fees direct from the ryots by whom they were due. No fees were payable by *inámdárs* and in this respect North Arcot appears to have been peculiar. The methods of commutation were two, according as the méra was *Aravada méra* or *Tinda káni méra*.

The Aravada (harvest) méra was calculated on the extent of cultivation, either of all classes of lands or of wet lands alone. Each village had its *méra dittam*, which showed how many markals of grain per káni the monigars and karnams of the village were entitled to, and the amount of grain as determined by the extent of cultivation was commuted at the price of fasli 1215.

The Tinda káni méra was settled, as its name implies, upon a *determined* number of kánis. "The nanja beriz of the village is "taken as the basis. This beriz is converted into grain at the "rate of 8 kalams for Rs. 3–8–0, *i.e.*, at nearly double the com-"mutation price of fasli 1215. From the quantity of grain thus "obtained, the number of kánis is calculated at the rate of from "30 to 40 kalams per káni, *i.e.*, as if it were all first-class land. "The determined number of kánis having been obtained in this "circuitous and depreciatory manner, the méra is calculated there-"on at so many markals of grain per káni according to the méra "dittam of the village. The process is, however, not yet com-"plete. The markals of grain are commuted into money at the

Service ináms.

"commutation prices of faslis 1215 and 1236, *i.e.*, at from $2\frac{3}{4}$ to "4 kallams for Rs. 3–8–0. This complicated method of calculating "the Tinda káni seems to be objectionable on several grounds—it "depreciates unjustly the value of the village officers' emoluments "—adds greatly to the labour of karnams and affords great facili-"ties for fraud."

The objections to this system of remunerating the village servants were numerous. The *inám* lands were often divided and sub-divided according to the Hindu law of partition and a practice arose of distributing the duties of the office in the same way, so that the work was neglected and it was difficult to fix responsibility. Some of the emoluments were altogether inadequate and in the case of the menial servants the fees were only partially realized as they had to collect them themselves.

To remedy this state of things it was proposed to resume the emoluments of the village servants. This was done in 1803, but the new arrangements made in the Northern and Southern divisions differed. Mr. Cockburn at first resumed both the lands and méras of monigars and karnams in Tiruvalam, Sholinghur, and Venkatagirikóta, but in Chittoor, Tirupati, Satghur and Kadapanattam he left them their mániam lands. Taliáris he left as he found them, and others, except nótagárs, he charged with one-quarter of the assessment of their inám lands. In 1806 the monigars and karnams of Chittoor and Tirupati shared the fate of those in the less fortunate taluks, as in 1808 did those in the remainder of the Northern division. Their remunerations were paid in money according to a fixed scale, depending upon the revenue of the village. Nótagárs were given no emoluments at all. Mr. Garrow in the Southern division resumed the mániams and méras of monigars and karnams and nótagárs, but only the méras of taliáris, and reduced the extent of rent free lands held by smiths, carpenters, and others to half a káni of nanjai, and as much of punjai. Monigars, karnams, and nótagárs received a money payment.

These arrangements were disapproved of by Government, who ordered the restoration of the resumed privileges, but the order was not fully obeyed until 1826, when all were restored except in the Chittoor taluk, where, owing to the lax administration of Abdul Waháb, monigars had in some cases appropriated mániam lands assessed at more than Rs. 1,200 a year. After inquiry part of these were restored and the rest resumed. The assessment on the lands given back was altogether Rs. 2,13,212 on cultivated and Rs. 34,865 on waste, while the money payments discontinued aggregated Rs. 1,27,422, the loss of Government being therefore Rs. 1,20,655.

CHAP. III. THE NEW SETTLEMENT.

Service ináms.

After the introduction of the Village Cess Act (IV of 1864) into the district all the ináms relating to revenue and police duties were enfranchised, and a regular money cess was substituted for the various méras. The inám lands were assigned to the office holder for the time being, but in consideration of the fact that the lands had long been regarded as practically the hereditary property of the family who held the hereditary right to the village office, only five-eighths of the full assessment was imposed as a quit-rent. This quit-rent is credited to the village service fund, and out of that fund all village servants are remunerated. Act IV of 1864 has recently been replaced by Act IV of 1893. Under the latter a cess based on the land assessment and water-tax payable to Government is substituted for the fees in money or kind which were formerly paid. The rate of cess is to be such as will yield a sum as nearly as possible equivalent to one-half of the cost of the village service within the area to which the Act is applied. The other half of the cost of the village establishments is defrayed from contributions from general revenues. Complete statistics will be found in the second volume.

The privilege of enfranchisement was not extended to the inám lands attached to offices other than those connected with revenue and police duties. The chief of these excluded ináms are those of the village artisans—the carpenter, blacksmith, potter, &c.—but in many villages there was also a grant for the astrologers. These lands are left on the favourable tenure so long as the service for which they were granted is performed, but if there is any failure in this respect the full assessment is levied. The méras payable to these servants are not now recognised by the Government, which will not enforce their payment. They are, however, in most villages, still paid voluntarily by the ryots.

Grant and Khayam pattá lands.

These comprise lands permanently made over at special rates of assessment by former Governments, or in some cases by former Collectors, in consideration of the trouble and expense involved in reclaiming the lands or in restoring works of irrigation under which they were situated. These lands are found chiefly in the Wálajápet and Chendragiri taluks and are similar to the 'grant' lands met with in the Chingleput district. They are in no sense ináms. The present revenue assessment is payable as long as the condition of the grants is in force.

PERMANENTLY-SETTLED ESTATES.

Kálahasti and Kárvetnagar.

KÁLAHASTI AND KÁRVETNAGAR.—The terms upon which the Kálahasti and Kárvetnagar zemindars originally held their estates are not clearly ascertainable, but it is certain that they were under obligation to serve in time of war, with a certain number of armed retainers. The peshkash, which they paid at the close of the

CHAP. III. PERMANENTLY-SETTLED ESTATES.

Kálahasti and Kárvetnagar.

eighteenth century, was small, and whether it had ever been greater seems doubtful. The Nabobs of Arcot, however, were in the habit of increasing the zemindar's contributions by occasional fines, and by nuzzers upon successions; but when in 1792 the zemindáris were transferred to the Company, it was stipulated that "the "fixed peshkash should not be augmented, except by virtue of "lawful existing instruments," and thus the Company were precluded from levying any extra contributions. As the nature of the British system was such as to render the military assistance of the zemindars valueless, it was resolved, at the cession, to relieve them of the burden of maintaining troops, and to add the cost of this to the amount of their tribute. Mr. Stratton, who before the cession had been appointed Collector of Western Peshkash, reported upon the condition of the zemindars, and from his letter it appears that their resources and peshkash were as follows:—

	Revenue.	Peshkash.
	RS.	RS.
Kálahasti	4,41,675	37,713
Kárvetnagar	3,39,454	1,14,051

or, while Kálahasti paid but 8½ per cent. of his revenues, Kárvetnagar contributed 33 per cent. of his.[18] Lands granted free of rent to military retainers were excluded from the assets of the estate. There were many of these retainers entirely dependent upon their chief, and ready at his bidding to commit any crime. They were of three classes—amaram, kattubadi, and mercenary—the two first being paid chiefly in land, and the last entirely in money and grain. The amaram peons, who were originally the only military retainers, were of the highest class, and might use what weapon they chose. Their appointment was hereditary, and they held lands on very favourable terms, a village being generally assigned to from eight to ten of them, who were considered as its mirásidárs, and paid a quit-rent. The kattubadi, on the other hand, was nothing more than the village constable, whose services were utilized in time of war, he being bound to serve with a pike or matchlock, and receiving, while absent from his village, extra allowances in the shape of batta in money and grain. His ordinary emoluments consisted of a fived amount of waste land, which

[18] It cannot be doubted that the resources of Kárvetnagar were never truly reported, as the above figures by no means represent the present relative values of the two estates. Mr. Stratton complained of the difficulty of obtaining complete accounts from the zemindar, and of the falsity of those submitted to him. He was obliged to begin to measure the land himself, which elicited a second set of accounts, showing, in the case of one mittah, an increase of 71 per cent. The resources were no doubt again understated, and the name of the Bráhman minister who deceived Mr. Stratton is still mentioned in Kárvetnagar.

CHAP. III. PERMANENTLY-SETTLED ESTATES. — Kálahasti and Kárvetnagar.

he had to bring under the plough, and for which he paid 'katnams' or presents, increasing with its increasing fertility. The mercenaries were adventurers who enlisted in the zemindar's service, and whose appointment was not hereditary. They were paid by assignments of the rent due by defaulting ryots or renters, from whom the zemindar had been unable to exact his dues.

The cost of these establishments in the case of Kálahasti was estimated to be Rs. 1,82,525 and in that of Kárvetnagar Rs. 1,45,439. The former maintained 317 amarams, 842 kattubadis, and 3,918 mercenaries; and the latter 911 amarams, 3,396 kattubadis, and only 990 mercenaries. The Commissioners who reported upon the zemindáris in 1802 (October 14th), expressed their hope that, when relieved of the expenses of keeping these lawless followers, they would "devote their superabundant wealth "to those domestic comforts and tranquil enjoyments which have "in all ages been the greatest means of subduing the ferocity of "barbarous tribes, and of substituting the pursuits of commerce, "luxury and peace." They recommended that the peshkash in the case of each should be raised to 60,000 pagodas, or Rs. 2,10,000; but deducting the revenue from salt, customs and abkári, the tribute of Kálahasti was reduced to Rs. 1,90,488 and that of Kárvetnagar to Rs. 1,87,663. Deductions have at various times been made on account of zemindári lands taken up by Government and for other reasons, and the present peshkash is Rs. 1,73,140 for Kálahasti and Rs. 1,73,911 for Kárvetnagar. The former has accepted a decrease in his peshkash in lieu of the right to collect the moturpha tax, while Kárvetnagar has retained that right. The sanads of both these zemindars were granted in September 1802. They differ from the ordinary form, in that the words "and exclusive of all lands and russooms heretofore appro- "priated to the support of village and police establishments" are omitted, and on this ground the zemindars maintain that they possess the right to appoint and dismiss all village officers, a pretension which has several times been denied by Government.

Punganúr.

PUNGANÚR.—According to Colonel Munro's report upon this zemindári, the earliest record of the peshkash paid is one of the middle of the seventeenth century, when the zemindar, or poligar as he was then called, having been dispossessed in 1642 by the Sultán of Bíjapúr, visited Hyderabad and obtained a grant of Punganúr and Ávulapalli (a portion only of the present estate), which had been taken from the Madanapalle poligar. These districts were valued at 60,000 Sherveroy pagodas, and the peshkash was fixed at half that amount. This arrangement continued until the reign of Aurangzíb, when Zulfikár Khán fixed

CHAP. III. PERMANENTLY-SETTLED ESTATES. — Punganúr.

the terms of the poligar's tenure at a payment of 10,000 Sherveroy pagodas in cash, and the service of a hundred horsemen valued at 8,000 Sherveroy pagodas and of two thousand footmen valued at 22,000 Sherveroy pagodas, the pagoda being worth just Rs. 3. In 1713 the Nabob of Cuddapah increased the tribute to Rs. 32,000, and directed that the poligar should during war bring 2,000 footmen into the field. Thirty-four years later the districts of Saddam and Kandúr, which the poligar claimed as part of his former estate, were restored to him, and at the same time the peshkash was reduced to Rs. 60,000. During the Mahrátta war of 1755 the Cuddapah Nabob was slain, and Punganúr formed part of the territory ceded to the victors. The poligar then bribed the Nabob's dewan to put his tribute down as only Rs. 32,000. During the succeeding twenty years the estate frequently changed masters, and the tribute varied, but in 1771 it was fixed as low as Rs. 28,000 "on account of the destitute condition of the country." When the estate came under the Mysore ráj the peshkash was raised to 20,000 Canteroy pagodas *plus* 5,000 Canteroy pagodas for durbar expenses, or not quite Rs. 75,000 in all. After the peace which terminated the third Mysore war, the poligar was directed to pay 30,000 Canteroy pagodas, but as he paid little of it he was, in 1795, expelled. He recovered possession during the last Mysore war, and at its conclusion his tribute was fixed at 20,000 Canteroy pagodas or nearly Rs. 60,000, of which two-thirds was payable to Mysore and one-third to the Company. Colonel Munro soon drew attention to the inconvenience of this arrangement, and the whole of the estate was transferred to the Company, an equivalent in land of the two-thirds being given to Mysore in exchange. Regarding the tribute Colonel Munro expressed his opinion that there was "no reason "for making it less, but many for making it more, if the country "can support it," and he added that "the necessity for establishing the authority of Government in Punganúr, and of "preventing future disturbances, demands a reduction of the "poligar's power." For this purpose he proposed that the poligar should receive one-fifth of the gross revenue, "or so much less as may be found convenient," and that he should be entrusted with the collection during his good behaviour. This was the proportion allowed to other proprietors in the Ceded Districts, and, as in their case, the Collector ordered Punganúr to dismiss all his military establishment, except the kattubadis or village police.

The poligar collected the revenue of his estate until 1808, when the three years lease began. In 1811 Mr. Ross, then Collector, wrote expressing his disbelief that the poligar could ever have paid the enormous sums mentioned by Colonel Munro.

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The average land rent for the past seven years had been less than Rs. 80,000; but the cultivation had been affected by the uncertainty regarding the eventual settlement of the estate, and by the three years lease; he therefore proposed a ryotwári settlement. This the Board of Revenue approved, and they viewed with favour the idea of granting the estate to the poligar, with the title of zemindar, upon terms of his paying two-thirds of its value. It contained 69 villages and 675 hamlets, of which 233 hamlets were granted as inám to amaram peons, faithful servants, Bráhmans, and the like. The average revenue during the ten years lease had been Rs. 96,337, and, during the seven years 1809–15, Rs. 1,01,087, and they recommended to Government that the peshkash should be fixed at Rs. 63,000. In 1815 Government approved and directed that a cowle on these terms should be issued, subject to the approval of the Court of Directors. The latter, however, refused sanction, and the Collector accordingly managed the estate on the ryotwári system. The poligar applied to be allowed the management, and this in 1825 was permitted, he being allowed one-fifth of the survey assessment, any loss by reduction of rents, falling upon Government. In the following year the poligar was further gratified by being allowed to conduct the jamabandi himself, and to issue pattás under his own signature, but he was still dissatisfied, and sent in a strong remonstrance, which resulted in Government directing that he should be left independent, paying a tribute of Rs. 63,000 pending a reference to the Court of Directors. The Board, however, thought this left him too little, and suggested a peshkash of Rs. 51,000 for the first three years, and a subsequent rise by increments of Rs. 1,000 every alternate year, until in the twentieth year the full amount was reached. This too was sanctioned by Government, but, in 1835, the Court of Directors again declined to issue a permanent sanad, though they consented to a cowle for twenty years on the terms proposed by the Board. When the leases terminated, in 1854, annual engagements were entered into with the poligar for a payment of Rs. 63,000, until a permanent sanad was at last, in 1861, granted on the same terms, with the title of zemindar. The amount was subsequently raised to Rs. 66,987–5–8 on account of quit-rent charged by the Inám Commissioner on lands within the zemindári. The present peshkash is Rs. 66,797.

Kangundi.

KANGUNDI.—This zemindári at first formed portion of the Krishnagiri Division of the Báramahál, and the early correspondence regarding its settlement is not therefore to be found in the records of this district. It appears, however, that the Collector, Colonel Graham, in 1805, estimated its value at Rs. 60,000 for

Kangundi.

Sircar lands and Rs. 1,00,000 for ináms. Colonel Graham's figures were however never acted upon, and Colonel Read, with reference to the assessment, remarked that it was 20 per cent. higher than others in his district, which were themselves too high. The poligar paid a peshkash of Rs. 23,734, managing the estate as a temporary measure until 1816, when it was attached for arrears and settled by Mr. Græme. In 1818 the Collector proposed that an entirely new survey should be made, and the peshkash raised to Rs. 28,241. Government objected to the latter measure, but authorized the resurvey of all ináms before the restoration of the estate. There was some delay in carrying out these orders, but the work was completed in 1823, and in 1824 an order was passed that the poligar should not resume any of the inám lands without the sanction of Government, and that he should keep up an efficient police. In 1832 a permanent sanad was offered, on a peshkash of Rs. 23,733-1-9, but was declined. In 1853 a more careful survey of ináms was made, for the order of 1824 never having been communicated to the poligar, he had dealt with these as he pleased, and had for years refused a sanad, which reserved the reversionary right to them to Government. The value of the ináms which remained in 1853 was found to be Rs. 57,334 and it was proposed, as a compromise, to give up to the poligar all mokhasa, rájaband, kattubadi and military ináms, valued at Rs. 31,888, and to enfranchise the dasabandam, religious, and personal grants, valued at Rs. 25,496. Government approved, only excepting such ináms as had been granted after Colonel Graham's survey, unless these had been given in substitution for old ones. Finally such an arrangement was made, and the poligar accepted a sanad in 1872, giving him the title of zemindar and fixing his peshkash at Rs. 23,030-9-10. This was reduced by Rs. 66-9-8, the jódi payable upon Peddabangárunattam village, which had been erroneously added to the peshkash, and again at various times by other sums for land taken up by Government. The present peshkash is Rs. 22,937, but this includes the payments made for certain villages and lands which have been alienated.

Arní.

ARNI.—This jágír was, early in the seventeenth century, granted by the Sultán of Bíjapúr to one Vedaji Bháskar Pant, a Mahrátta Bráhman, for faithful military service. The original sanad and early records of the family are not forthcoming, having been destroyed during the Muhammadan invasion of 1690, and it is therefore unknown what tribute was at first paid. The estate was held without interruption until 1761, when the Nabob attached it, and dispossessed the jágírdár, in consequence of his not paying a contribution after the war, and various other acts of disobedience. On the conclusion of peace, in 1762, between the

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Nabob and the Tanjore Rájá, the estate was restored on various conditions, one being that an annual nuzzer of Rs. 10,000 should be paid. It was again attached in 1771, and not given back until 1789, when Mr. John Holland, Governor of Madras, placed Srinivása Rao, the representative of the family, in possession. His successors have received a fresh sanad upon each succession, and paid the same annual nuzzer until 1872, when a reduction of Rs. 4,000 on account of resumed moturpha was made. Other reductions bring the nuzzer down to Rs. 5,015.

Chittoor and Chendragiri Pálaiyams.

CHITTOOR AND CHENDRAGIRI PÁLAIYAMS.—There are at present six of these, viz., Bangári, Náraganti, Tumba, Gudipáti, Pulicherla and Kallúr. The amounts at first contributed by them to the State are not known, but at the commencement of the eighteenth century, upon the defeat of the poligars, their united peshkash, including that of the forfeited pálaiyams of Mogarála, Pullúr, Pákála and Yedaragunta, was fixed at 40,000 Pallipat pagodas, how distributed there is no means of ascertaining. Some years later the Nabob Dost Ali reduced the tribute to less than a half and distributed it thus—

	P.P.
Bangári	4,300
Mogarála	2,800
Náraganti	2,900
Pullúr	2,700
Pákála	2,300
Pulicherla	1,200
Kallúr	775
Tumba	410
Gudipáti	1,710
TOTAL	19,085

Abdul Wahráb, brother of the Nabob, in consequence of the contumacy of his vassals, raised their tributes to the following sums:—

——	Peshkash.	Nuzzer.	Total.
	P.P.	P.P.	P.P.
Bangári	3,125	3,125	6,250
Mogarála	2,459	2,455	4,918
Pákála	2,150	2,159	4,300
Náraganti	2,500	2,500	5,000
Pullúr	2,350	2,350	4,700
Pulicherla	1,200	1,200	2,400
Kallúr	816	816	1,632
Tumba	400	400	800
Gudipáti	560	...	560
TOTAL	...	...	30,560

CHAP. III.
PERMANENTLY-SETTLED ESTATES.
Chittoor and Chendragiri Pálaiyams.

After his return from imprisonment at Seringapatam, Abdul Waháb re-arranged the peshkash thus—

———	Peshkash.	Nuzzer.	Total.
	P.P.	P.P.	P.P.
Bangári	3,049 0	991 4	4,040
Mogarála	1,991 0	606 0	2,597
Pákála	2,675 4	1,225 0	3,900
Pullúr	2,374 0	1,335 0	3,709
Náraganti	2,490 0	1,421 8	3,911
Pulicherla	1,144 0	670 0	1,814
Kallúr	748 4	454 8	1,202
Tumba	395 12	227 0	622
Gudipáti	560 0	...	560
TOTAL ...	...	...	22,355

At the cession there were large arrears, though the exact amounts could only be ascertained for faslis 1209 and 1210. Mr. Stratton considered that these balances arose from the defiant attitude which the poligars were able to assume by the aid of their retainers, who numbered 558 amarams and 4,324 kattubadis. As they held no sanads showing that they held on any feudal tenure, he did not call upon them to dismiss their peons; but made large temporary additions to their tribute, preparatory to a permanent settlement with them. The amounts fixed were these—

	S.P.		RS.	A.	P.
Bangári	8,500	or	29,750	0	0
Mogarála	7,000		24,500	0	0
Pákála	6,000		21,000	0	0
Pullúr	4,200		14,700	0	0
Náraganti	4,100		14,350	0	0
Pulicherla	2,625		9,187	8	0
Kallúr	1,750		6,125	0	0
Tumba	700		2,450	0	0
Gudipáti	900		3,150	0	0
	TOTAL ..		1,25,212	8	0

The result of this measure was the revolt of all the poligars, save Gudipáti. When this was subdued the Pákála, Mogarála, and Pullúr pálaiyams were finally resumed, and the remaining estates were administered on the same principles as the Government taluks of the district, 18 per cent. of the land revenue being paid to the poligars. In 1819 Government ordered the restoration of the pálaiyams. According to the English proclamation published at the time of the rebellion, the rebels had been promised two-fifths of the value of their estates. The vernacular copy offered them

CHAP. III. PERMANENTLY-SETTLED ESTATES. — Chittoor and Chendragiri Pálaiyams.

three-fifths, which was the proportion tendered to them by the Commissioners deputed to pacify them. It appeared that this was what had been originally intended, and it was accordingly calculated upon the average collections during the decennial lease, three-fourths of the survey rate on amaram and rájaband and two-thirds on miscellaneous ináms being deducted, thus —

Estates.	Average of ten years.	Three-fourths amaram and rájaband ináms.	Two-thirds of miscellaneous ináms.	Government two-fifth share.
	S.P.	S.P.	S.P.	RS.
Bangári	8,181 5 57	100 16 28	396 23 29	12,149
Tumba	1,263 0 0	6 4 59	22 12 70	1,808
Náraganti	4,514 20 9	113 40 63	114 34 0	6,640
Kallúr	2,369 6 59	534 36 74	79 0 37	4,176
Pulicherla	3,449 21 64	425 24 69	137 30 37	5,617

The peshkash of Gudipáti was on the same principles fixed at S.P. 871-28-55, or Rs. 3,050. These figures show how extravagant had been Mr. Stratton's valuation, and explain to some extent the feelings which led to the revolt of the poligars. Though the tributes were fixed in 1819, the estates still continued for a few years under management as the poligars had contracted debts. In 1863 the Board recommended to Government the grant of permanent sanads, which was approved of. Sanads were in 1866 tendered to, and accepted by each. The present peshkash paid on the estates is—

	RS.
Bangári	11,648
Tumba	1,783
Pulicherla	5,005
Kallúr	4,040
Náraganti	6,503
Gudipáti	2,728

various small deductions having been made from time to time on account of lands taken up for public purposes, ináms resumed, and the like.

MOTURPHA.

The moturpha tax appears to have been a remnant of the old mouzwár, or village lease system, under which the lessees were under no fixed rules as to the classes from whom, or the property on which the amount of their leases should be levied. The company continued to collect the tax at the rates that had been in force under the Nabob. Shepherds, painters of chintz, bricklayers, and the owners of shops, looms, oil-mills, furnaces, indigo vats, &c., were liable, but upon no fixed principle. In no place except Arcot did bricklayers pay, while shepherds and others

MOTURPHA.

were in some villages liable and in others they were endowed with inám lands; the cause of this difference being found in the fact that in the one case they gave their services to the community gratis, and in the other they charged for them. From the absence of uniformity in the moturpha it was considered objectionable, and in 1860 was abolished in all Government taluks, and in every settled estate except Kárvetnagar. The proprietors received compensation for the withdrawal of their right to levy the tax, but Kárvetnagar declined to accept reasonable terms, and by him the moturpha is still collected. The revenue derived from the tax in various years has been as follows:—

Fasli.	RS.
1236	30,899
1241	33,258
1246	32,295
1251	35,588
1256	35,813
1261	39,359
1266	41,812
1270	38,103

SÁYER OR TRANSIT DUTIES.

These duties were levied previous to the assumption of the country by the British, and for a few years after it, on the transit of goods at innumerable chaukies (toll-houses) established throughout the country for the purpose. The rates of duty were various and arbitrary, the demands were unlimited and the places at which the duty was levied depended on the will of the renters and the native servants. The evils of this system were thus described by the Board of Revenue in their letter to Government of 20th October 1801. "We have been much impressed with the pernicious consequences resulting from the collection of the sayer and "of its perversion from its original useful intention to the means "of gratifying the rapacity of native tax-gatherers, who certainly "collect twice as much as they account for to the State; this great "engine of oppression, in its nature arbitrary and indefinite, subjects the merchants and ryots to continued vexation, whilst the "reiterated and fraudulent imposition of it in every district, nay, "in every village, renders it peculiarly adverse to trade and much "more burthensome to the people than beneficial to the sovereign." The sayer was abolished by Regulation XII of 1803, and the frontier and town duties were substituted. The former was levied on all goods passing from or into foreign territories, and the latter on all articles of internal consumption. Both were payable once only, and on payment of the duty, a pass was granted which exempted them from all further payments, except when they entered certain populous towns where they were subjected to

CHAP. III. SÁYER OR TRANSIT DUTIES.

a fresh duty. The rate of duty was to be fixed, and the number of chaukies, and the places where there were to be established, determined by the Board of Revenue. On the introduction of the salt monopoly in 1805, grain was exempted from duty. The town duties were soon found to work ill; [19] it had been trusted that the imposition of a tax on goods for sale passing into or out of populous centres would attract trade "by the establishment of markets "for the exchange and sale of merchandise," and it was disconcerting to find that not only were new markets not established, but old ones were injured by the removal of merchants to villages outside the previous trade centres, while goods in transit simply deviated from the ordinary track in order to avoid the toll-gates. The town duties were abolished in 1806, but re-imposed with restrictions in 1808; in 1822 a fresh regulation provided that transit and import duty could only be levied on certain goods and at 5 per cent. *ad valorem;* grain was charged 3 per cent. and that only on export into foreign territory. The right of collection was generally rented out to contractors over whom but very slight control was possible, and complaints were numerous, so that in 1844 these vexatious and harassing imposts were finally abolished.

Other sources of revenue.

The only other important items of revenue are those derived from salt and intoxicating liquors and drugs. The former is levied at the salt pans, of which there are none in this district, and the history of the administration of the latter will be found in Volume II.

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[19] Para. 602, General Report, 5th October 1806.

CHAPTER IV.

THE PEOPLE.

INTRODUCTION. LANGUAGE. RELIGION — Popular Hinduism — Bráhmanical Hinduism—Muhammadanism—Jains—Christians. CUSTOMS — Dress—Houses—Food. CASTE — Introductory. PRIESTLY CASTES — Bráhman — Jangam — Pandáram — Pújári — Valluvan. TEMPLE SERVANTS — Sátáni — Bhógam. TRADERS — Balija — Kavarai—Linga Balija — Kómati—Béri Chetti—Labbai. ACCOUNTANTS—Karnam or Kanakkan. HUSBANDMEN—Kshatriya — Rájput — Rázu — Bondili — Marátha — Vellála — Agamudaiyan — Malayáli — Kápu or Reddi—Kamma—Velama—Ékari—Mutrácha or Muttarásan—Pálayakkáran—Tolagari — Jain. SHEPHERDS AND CATTLE-BREEDERS — Golla — Idaiyan — Kurumba — Kannadiyan. ARTISANS — Kammála and Kamsala. WEAVING CASTES—Dévánga—Jándra — Janappan — Kaikólan — Patnúlkár — Rangári — Sále — Séniyan — Togata — Dúdékula. OIL-PRESSERS — Gándla — Vániyan. POTTERS — Kummara or Kusavan. FISHERMEN — Bésta — Bóya — Paḷḷi — Sembadavan — Védan — Mála. LABOURERS — Paraiyan — Vanniyan or Paḷḷi. WASHERMEN—Tsákala—Vannán. BARBERS—Mangala and Ambattan. TODDY-DRAWERS — Ídiga — Shánán. LEATHER-WORKERS — Mádiga — Chakkiliyan — Jínigar. TUMBLERS AND ACROBATS—Dommara — Vagirivélu. MISCELLANEOUS AND MENDICANT CASTES—Bhatrázu — Dásari or Tádan — Jhógi — Mondi or Banda — Panisavan — Sugáli and Lambádi — Odde — Uppara — Médara — Korava—Bhattuturaka. FOREST AND HILL TRIBES—Irula—Yánádi.

CHAP. IV.
INTRODUCTION.

OF the early inhabitants of the district very little is known. Stone implements have been found in various localities (see Chapter I), but whether the people who fashioned and used them were the forefathers of the present inhabitants or members of a different ethnic stock, it is impossible at present to say. There are indications that what are now the lowest castes were once in a much higher position, but, with the exception of a few immigrants, high and low alike speak Dravidian languages, and the weight of opinion seems to favour the theory of ethnical unity. Language, however, is fallacious as a test of race, and it is possible that anthropometrical investigations may in the future bring to light essential differences in structure of such a character as to throw doubt on the views at present prevailing.

LANGUAGE.

Tamil and Telugu are spoken in about equal proportions, the former being the vernacular of the southern and the latter of the northern taluks; but both are known to the better educated all over the district. The Pálár may be roughly given as the boundary which separates the two tongues, though the frontier line of Tamil has passed somewhat to the north of the river and seems extending still further northwards. There is, as might be expected, no defined line of separation. Tamil villages are scattered among those of the Telugu people, and those of the latter among the Tamilians. Often in the same villages Telugu and Tamil castes live side by side, and in such cases it is usually found that the higher classes speak Telugu and the lower Tamil. The

CHAP. IV. LANGUAGE.

foreign Muhammadans speak Hindustani among themselves, but most, if not all, know the vernacular of their taluk as well. Some pretend not to do so, but it is in most cases mere affectation. Labbais, as a rule, speak only Tamil, though some are now taking to Hindustani. English is spoken more or less fluently by many of the natives in towns and by a few of the more educated in villages: its knowledge is yearly becoming more extended.

RELIGION.

Popular Hinduism.

The great mass of the population are Hindus, in the ordinary sense of that term, but the religion of the large proportion of them is very different from that of the Védas. They give an allegiance to one or more of the incarnations of Vishnu or Siva, they attend the great festivals, and give offerings, holding both deity and priesthood in respect and awe. But their real gods are the grámadévatas and the dread Máriamma, the goddess of small-pox.

This popular Hinduism, as it may be called, is the religion of nine-tenths of the population, and even the Bráhmans are not above sending an offering of fruit to the village goddess or Máriamma to avert or remove a calamity. They do not, however, offer animal sacrifices, and to them and the few castes who have some claim to be twice born, the gods of the Puránas are the most important.

Every village has its guardian deity—the Grámadévata of the Telugus, the Úramma or 'village mother' of the Tamils. This guardian deity is always feminine, and it is sometimes alleged that she is merely a form of the Bráhmanical Káli or Durga. It is, however, far more probable that the dread consort of Siva owes her origin to the village mother, for these grámadévatas existed long before the Bráhmans penetrated to the south.

The names of these goddesses are legion, but the most common one in North Arcot is Gangamma, an account of whose origin will be found in the notice of the town of Palmanér in the Gazetteer portion of this *Manual.* Other well-known goddesses are Ankálamma, Mutyálamma, Kanniamma, Ponniamma, Ellamma, Póléramma, &c. Many, if not all of them, are of human origin. Thus Gangamma was a Bráhman's daughter and Pungamma, the deity of Punganúr, was one of three sisters who built the great tank.[1] The village goddess invariably has a temple, but it is usually of very small dimensions, rudely built, without any ornamentation, except perhaps a few plaster figures. The deity is generally represented by a stone, but in some cases an actual figure of a female is found. The priesthood of these temples is vested in no particular caste, but the priests invariably belong to a community that is regarded as holding a somewhat low position in the social scale, such as potters, carpenters, weavers, washermen, &c. They are never Bráhmans, and this fact,

[1] For other instances see *Madras Census Report*, 1891, pp. 58 and 59.

Popular Hinduism.

coupled with the further curious custom that a Pariah usually plays an important part at the great festivals, shows conclusively that the worship has nothing to do with the Bráhmanical faith. Thus at the festival of the Palmanér deity, a Pariah assists the washerman (Tsákala) pújári or priest, and during the period of the ceremonies he is allowed to wear the sacred thread of the twice-born classes. The priests of these village deities frequently hold inám lands, and they also get the proceeds of all offerings and sacrifices. The ordinary worship of the tutelary goddesses consists in offering a few flowers or fruit, but special offerings are often made in fulfilment of vows; these generally take the form of a cock or a black goat. At the large festivals, however, which are held in some cases annually, in others at longer intervals, enormous numbers of buffaloes, goats and fowls are sacrificed. The head of the buffalo is cut off, the foreleg is placed in the mouth and the viscera are placed on the head. The connection of the buffalo with these sacrifices is important, as it may perhaps indicate that they originated in a land where cows and oxen were unknown. The goats offered should always be black, and it is a common practice to ascertain whether the animal is acceptable to the deity to sprinkle water on his head. If he shakes his head the sacrifice may proceed; otherwise a fresh animal should be procured. This custom is not confined to the Dravidians or even to India. Perhaps the largest of all these festivals is that held at Tirupati in honour of the goddess Gangamma. It commences on the fourth Tuesday of the Tamil month Chitrai (March–April) and lasts for eight days. It is distinguished from the majority of similar festivals by a custom which requires the people to appear in a different disguise (vésham) every morning and evening. On the Wednesday morning the disguise is that of a Bairági, in the evening that of a serpent, and so on to the following Tuesday. During the first three days there is much obscenity, but the festivity becomes more decent towards the end. The 'Mátangi vésham' of Sunday morning deserves special mention. The devotee who consents to undergo this ceremony dances in front of an image or representation of the goddess, and when he is worked up to the proper pitch of frenzy, a metal wire is passed through the middle of his tongue. It is believed that this operation causes no pain nor even bleeding, and the only remedy adopted is the chewing of a few margosa leaves and some kunkumam (red powder) of the goddess. This 'vésham' is undertaken only by a Kaikólan (weaver), and is performed only in two places—the house of a certain Bráhman and the Mahant's math. Another form of so-called disguise is the 'sunnapu kunda vésham.' Three pots are arranged, one above the other, on the head of the performer and his hair is passed through holes in them. On the Tuesday morning

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comes the 'chapram vésham.' Models of cars (chaprams) are carried by people along the four main streets of the town. The thin bamboos which form the four legs of each car are made to pass through the skin of the bearer—two through the back and two near the abdomen. This operation is performed before the goddess Veshalamma, who is one of the six tutelary deities of Tirupati. The concluding disguise is that known as the 'pérantálu vésham.' Pérantálu signifies the deceased married women of a family who have died before their husbands, or, more particularly, the most distinguished of such women. This vésham is accordingly represented by a Kaikólan (weaver) disguised as a female, who rides round the town on a horse and distributes to the respectable inhabitants of the place the kunkumam, saffron paste and flower of the goddess. Then images of the two Gangammas—Talapákkam Gangamma and Tátayyagunta Gangamma—are made and about 20 male buffaloes, 400 goats and 700 fowls are sacrificed before them. The images are then destroyed and the festival comes to a close. This Gangamma is said to be a sister of Venkatáchalaswámi, the god of the Tirupati hills, a tradition that shows the process of absorption pursued by the Bráhmanical doctrine, which has this feature in common with the religion of the Romans. The tradition regarding Gangamma further states that she fought with and slew a Rákshasa who was enamoured of her, and on the last day of the festival a man representing the dead Rákshasa is carried out of the town in a cart and is not allowed to return until the following morning. The disguises represent the various forms assumed by the Rákshasa in the combat with the goddess, who so respected her enemy that she took a vow of perpetual widowhood—another trace of Bráhmanical influence. It would be tedious to describe the many other festivals of these goddesses, and it must suffice to merely mention those of Karakambádi, Nagari, Puttúr, Náráyanavanam, Palmanér and Punganúr.

Allied to these village deities is Máriamma, the goddess of small-pox. She has temples throughout the district similar in character to those of the village goddesses, and indeed in some villages she is the only deity of this class. These goddesses are in fact all closely connected, and Máriamma differs from the others only in her supposed special connection with small-pox. All are propitiated by blood sacrifices, thus differing essentially from the gods of the Bráhmans, and in the worship of all the margosa plays an important part. At some festivals the worshippers are clad in nothing but the leaves of this tree, and in all the leaves and branches are used to decorate the goddess or the temple or for some other purpose. All these village deities are feminine, and there is probably some connection between this form of worship and the veneration of *sakti* or the female principle. In the south of the

Popular Hinduism.

presidency there is a male deity, Aiyanár, who is akin to the village mothers, but he is not known in North Arcot, though there is a male divinity, called Periyándavan, who may have some connection with Aiyanár. Tradition, however, alleges that he and his wife Ankálamma are the forms which Siva and Párvati assumed when they fled to the burial-ground to do penance for having cut off one of Bramha's heads. The spirit of the burial-ground is greatly feared by the lower classes of Tamils, and this connection between him and Siva is significant.

The deities we have been considering so far are in some respects tutelary and protect their worshippers from the evil wrought by spirits. These spirits are, for the most part, the shades of those who have died violent deaths or led unusually wicked lives and they are found everywhere. The so-called devil dances to propitiate such spirits, which are so common in the south and west, are not usual in North Arcot, but they are occasionally practised, especially among the lower classes of the population.

Serpent worship is found throughout the district, and representations of the cobra in stone may be seen under a tree by the side of most tanks. There is no regular worship of these as a rule, but women as they pass in the morning with their brazen water pots, will make a little offering of plantains, milk or the like, whispering prayers for offspring or good fortune as they walk round and round the picturesque shrine.

Bráhmanical Hinduism.

The Bráhmanical religion is divided into three sects, one of which worships Siva, while the other two worship Vishnu. The belief of the Saivites or Smártas is that the living principle of the universe is God, and the natural universe his external appearance; but beyond the visible form of the deity, spirit reigns alone, and a man may, by concentrating his thoughts on the spirit, release his soul from its earthly tenement, and thus obtain salvation by union with the spirit of God. As these ideas are too sublime for general comprehension, symbolism was introduced, and, believing that the material universe was the appearance of God, they divided matter into what they regarded as its five elements—earth, water, light, air and space, under each of which forms they worshipped the deity in the shape of a lingam. Five principal pagodas now exist dedicated to Siva under one of the supposed elements of matter. One of these, representing air, is at Kálahasti, where a sacred lamp suspended over the lingam sways mysteriously from side to side, though its position is such that no wind can affect it. Earth is represented at Conjeeveram; water at Jambukésvaram, near Trichinopoly; fire at Tiruvannámalai in South Arcot; and space at Chidambaram in the same district.

Unlike the Saivites, the votaries of Vishnu recognize a personal god, separate and different from the universe itself. They

CHAP. IV. RELIGION. — Bráhmanical Hinduism.

call him Náráyana and make Bramha and Siva subordinate deities, to whom he has delegated the functions of creation and destruction respectively. He lives in Vaikuṇtham, and, without being absent from thence, can pervade parts of the universe with or without form. Those who entertain this belief are called Mádhvas, and their philosophy, Dvaitam. The other sect of Vaishnavites are the Srí Vaishnavas, who profess the Visishta Advaitam philosophy or the Dvaitam with a difference. They hold a somewhat medium position between the Smártas and Mádhvas, for, though they acknowledge the superiority of Vishnu, they maintain that the human and divine spirits are in some respects one and the same, the soul of man being subordinate to that of God, who has a separate body but a soul, which includes the whole universe. This sect is divided into the Tengalais and Vadagalais, whose disputes often lead to serious affrays. The outward mark of distinction between the sects appears in the shape of the trident which is marked upon their foreheads. The Vadagalais in making this stop the centre line at the root of the nose, while the Tengalais carry it on for a short distance, thus giving the trident a sort of handle. The dispute regarding these two marks is said to be modern, but there are other and more serious differences in belief and ritual.

Tengalai signifies southern Védas or Prabandhas, which are Tamil hymns regarded by these sectarians as equal in importance to the Védas. Vadagalai, on the other hand, signifies northern Védas, and the followers of this school uphold the sanctity of the Védas proper as superior to that of the Prabandhas. The Vadagalais assert that God's good will may be secured by man's good works; but the Tengalais declare that man can do nothing towards securing the favour of the deity. The Vadagalais maintain that Lakshmi, the consort of Vishnu, has the power of conferring salvation; but the Tengalais deny this, and say that she can only recommend man for this happiness. Vadagalais ascribe to her the quality of omnipresence; but their opponents deny the goddess this attribute. Vadagalais say that God pays no attention to sins unconsciously committed; while Tengalais maintain that he is conscious of, and pained by, them, but overlooks them through love for mankind. Finally, the Vadagalais believe that an enlightened man of an inferior caste can only be regarded as good and that his natural degradation can never be removed by reason of his enlightenment; but Tengalais, on the contrary, declare that even an enlightened Súdra may be more holy than an indifferent Bráhman. In ritual the following distinctions exist:—Vadagalais ring bells during domestic worship; while Tengalais consider this improper. During the annual ceremonies Vadagalais wash the feet of the officiating Bráhman and drink the water used for the

Bráhmanical Hinduism.

purpose; but the Tengalais, with better taste, reject this practice. Tengalais always fast on the eleventh day of the fortnight after the full and new moons called Ékádasi; whereas the Vadagalais, admitting that the day should be kept as a fast, perform the annual ceremonies of deceased persons and feed Bráhmans should the day fall upon the eleventh of the fortnight. The Vadagalai widow shaves her head on her widowhood; but the Tengalai need not necessarily do so. The Vadagalai is most particular about bathing, as he believes that it absolves him from sin; but the Tengalai regards it merely as a cleanly habit.

Smártas, Mádhvas, and Srí Vaishnavas are distinguished from one another by the mark upon their foreheads, usually but wrongly, called caste marks. Smártas use ashes smeared over the body directly after washing, and sandalwood paste in the form of a spot (*boṭṭu*) generally before taking meals, horizontal lines (*aḍḍa-gandham*) or a semi-circle (*úrdva-pundram*). The absence of the sandalwood spot in the afternoon indicates either pollution or fasting. Mádhvas employ a kind of earth called *gôpi chandanam* and make a spot with a horizontal line above it called *angáram* or *akshithalu* or a two-pronged trident with a spot in the middle called úrdva-pundram. Srí Vaishnavas with a white sort of clay (*tiruman*) form their trident marks, the centre line being coloured red. The two white side lines represent the feet of Vishnu and the red line Lakshmi.

Muhammadanism.

Of the Muhammadan religion, little need be said, except that with many professors of the faith there is much ignorance regarding its tenets, and a disposition among the more isolated to take part in the devil-worship of their neighbours. There seems to be no attempt at proselytism among them, but the Wahábís make efforts to draw their co-religionists to their own way of thinking. Many of the Labbais of Ambúr and throughout the Vellore and Gudiyáttam taluks belong to this sect. Wahábiism has, however, little or no political significance here, being a mere religious movement towards a puritan form of Muhammadanism, and an effort of that creed to resume its iconoclastic character and to throw off the impurities which have been grafted on it by contact with Hinduism.

Almost all Musalmans are Sunnis, recognizing the succession not only of Ali, but of Usmán, Umar, and Abu Bakr as well, and admitting traditions. As a class, they are ignorant, poor and idle, but a few are successful and wealthy traders. The common occupation of the lower orders is petty trading or service as sepoys, constables and peons. More than half of their number are Sheiks, and the rest are Saiyads, Patháns and Moghals.

Jains.

North Arcot is only second to Canara in the number of its Jains. They maintain that theirs is the original religion of the Aryan race and that Brahmanism is a corrupted form of it. They

CHAP. IV. RELIGION.

Jains.

seem to believe in the existence of a god, though they say that they know nothing about him, and they worship certain deified heroes, whom they call Tírtankaras, or those who have 'passed over' the gulf which separates human beings from the godhead. Like the Bráhmans, they maintain the doctrine of the metempsychosis, and say that the Tírtankaras only by the purity of their lives obtained exemption from further births and attained to eternal happiness. There are twenty-four of these, of whom they chiefly revere the first, twenty-third, and twenty-fourth, named Ádinádan, Pársvanádan, and Mahávíra. The earlier Tírtankaras are believed to have been of prodigious proportions and to have lived fabulously long lives, but the later ones, who are probably historical characters, were of more ordinary stature and longevity. There is an extreme ignorance regarding their religion among most of the followers of this faith, and many do not scruple to visit Hindu shrines when suffering from sickness or anxious for any particular benefit. Like Bráhmans, the Jains are idolaters, their idols being always nude male figures similar in appearance to those of the Buddhists. One of their most remarkable peculiarities is their extreme veneration for animal life. On this account they never eat flesh nor will they take food or drink water after twilight, lest by mischance they should swallow some minute insect. They have Védas of their own and conform generally to the customs of the Bráhmans, bathing frequently and reciting Sanskrit prayers the while. They mark their foreheads with two upright marks joined by a horizontal base line and having a spot in the centre, all made of sandalwood powder.

Christians.

The Christian converts are mostly taken from among the out-caste Pariahs, who have in some cases, no doubt, come over rather from policy than from conviction. The Roman Catholics were the first to start the work of proselytising, the Jesuits having had a church at Punganúr at least as early as the beginning of the eighteenth century and there are more than three Catholics to every Protestant. The only large Protestant mission at work in the district is that known as the Arcot American mission which has a number of schools and churches in different parts of the district and a considerable number of members. Among other Protestant missions may be mentioned that of the Church of Scotland at Vellore, the Danish mission at the same place, and the German mission at Tirupati.

CUSTOMS. Dress.

The ordinary attire of the Hindu consists of a large thin muslin cloth (dóvati) tied loosely and gracefully at the waist and folded around his limbs as far as below the knees. Over his shoulders is thrown another white or coloured muslin (angavastram) except when he is at home or engaged in labour. His

CHAP. IV. CUSTOMS. Dress.

head-dress is composed of a long piece of fine muslin, generally coloured, which, when he can afford it, has a border of gold, increasing in breadth according to his means. The Bráhmans, however, who are engaged in priestly offices (Vaidíkas) wear no turban, though the Laukíkas, who are employed in worldly duties, do so. The Hindu wears rings of silver upon his toes, anklets and bracelets of gold or silver, and small nose rings, generally of gold, having sometimes real gems set in them, but more usually imitation stones. It is in the cost of the turban and the character of his jewels that his wealth shows itself. Some have begun to wear coats and jackets of longcloth or coloured chintz. The very poor are simply clad, and when at work often wear nothing more than a rag assumed for the sake of decency. Musalmans usually wear long loose trousers and jackets, besides a turban bound round a skull-cap or fez. The trousers of the richer are made of brilliantly coloured silk, and their jackets are richly embroidered with tastefully arranged colours. They are less addicted to jewellery than their Hindu neighbours, and do not wear earrings. The Hindus generally shave all the hair of the head except one lock, while the Musalmans either shave entirely or merely cut their hair in a straight line at the nape of the neck.

The dress of Hindu women consists of a single cloth (Tam. *pudaivai;* Tel. *chira*), 8 yards long, folded round the waist over several pleats gathered together in front or either side, according to the custom of various castes, and then drawn over one shoulder so as to cover the bosom. The slightly different style of tying and arranging this cloth generally reveals at a glance to the initiated the caste of the wearer. Below the cloth is worn a petticoat (*pávádai*) by women of some castes, unless they are widows. Children of all classes generally have this petticoat alone, and adult women put off the *pudaivai* at home, and substitute an upper cloth called sella, but this is not considered very respectable, as it is rather the mark of a dancing girl. Some classes wear a small tight-fitting coloured jacket (*ravikkai*) reaching down about half way to the waist; but widows never wear this, and, like the *pávádai*, it is thought by some to be improper. A woman who wears the *pávádai* generally wears the ravikkai, but if she wears the latter it does not follow that she would approve of the former. All Hindu women assume jewels of a more or less costly description according to their position in life, and in wealthy families there are wonderful collections of jewelled ornaments of a stereotyped form, the surplus capital of their husbands and fathers being invested in this way. Muhammadan women invariably, and Mahrátta women generally, wear the petticoat and jacket described above. Only the poorer classes of Musalman females

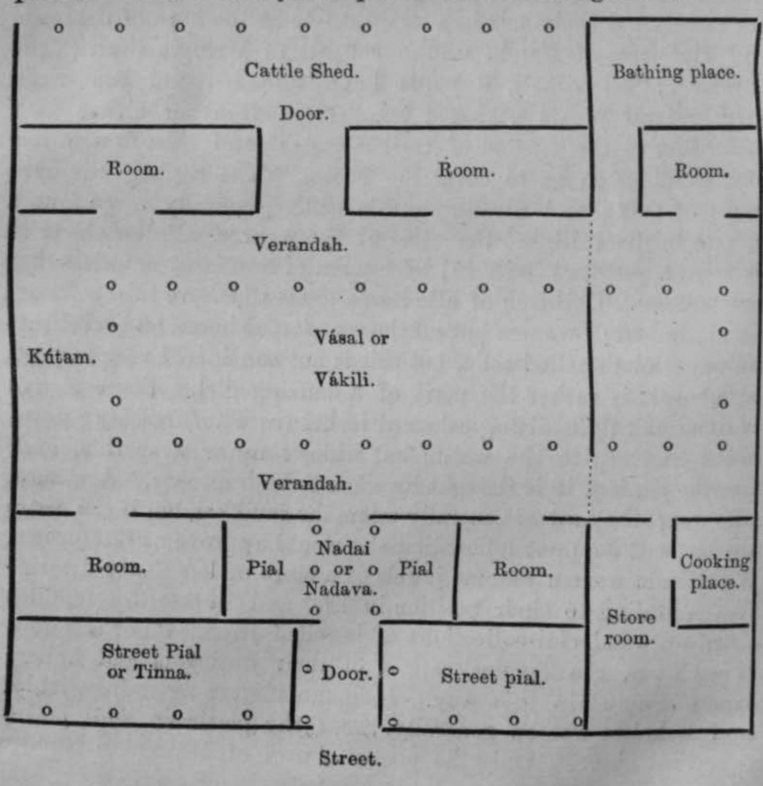
CHAP. IV. CUSTOMS.

Dress.

appear in public and they are conspicuous for the absence of jewels. The females of the well-to-do are kept strictly or partially gosha, never walking abroad, or only doing so with a cloth covering the head and face.

Houses.

In the larger towns pucka built and even storeyed houses are not uncommon, but the larger proportion of native town houses are built of brick in mud pointed with mortar, but roofed with tiles. In villages the people mostly occupy thatched dwellings with walls of mud or brick in mud. Above the ghâts many houses are terraced with a tenaceous clay, in which soda is combined, resting upon beams and reepers, open sky-lights or apertures being left in the roof to supply light and ventilation. On the plains such houses are also sometimes seen, particularly in Tirupati. The reason for this peculiar style of architecture is variously assigned to high winds, the dread of fire from thatch, and to monkeys. The houses are cosy though close and leaky; the roof cannot be damaged by boisterous winds, and monkeys cannot play tricks with the terrace as they can with thatch or tiles. Terraced houses are, however, much less roomy than the ordinary tiled dwelling of the plains of which the subjoined plan shows the arrangement:—



CHAP. IV.
CUSTOMS.
Houses.

This represents a large and comfortable house having two kaṭṭus or compartments, that to the left being for general use, while that to the right is used by the women. The street pial or lounge is generally allowed to be occupied by any one. The inner or *nadai* pial is for friends, as is the *kúṭam* or covered hall, where visitors are received and feasts given. The *vásal* (Tam.) or *vákili* (Tel.) is open to the sky and lights the whole dwelling, the rooms of which have no windows, or only very small ones. The *vásal* extends to the second or women's compartment, but a wall divides it, and the covered verandah which surrounds it has generally screens placed behind the open spaces at the ends of the wall to secure the privacy of the women. Many or most houses have no second compartment, and sometimes several brothers occupy various parts of a large building, cooking and messing separately. Each dwelling has a backyard in which cattle are tied, but not unfrequently these are admitted into the interior of the building. The floors are usually of beaten clay daily washed with a mixture of cowdung and water.

The furniture of a well-to-do town resident is of course superior to that of a villager. The former possesses one or more cots of wood or bamboo, a low three-legged table (*mukkál píta*) or two, several boxes, some chairs, and occasionally a press for linen. The wealthy even indulge in sofas, easy-chairs, mirrors, chandeliers, and wall-shades. In villages the requirements of the people are more simple. They sleep upon mats or wooden planks with low legs (*vissa palaka*), and beyond a few benches and boxes they have and need no other furniture. They generally use feeble oil lamps, a wick burning in a brass saucer of oil upon a pedestal, or in small earthenware saucers placed in a niche in the wall, but kerosine lamps are now becoming common in towns.

Food.

All classes take but two meals a day, one at 10 or 11 A.M. followed by a siesta, and the other at nightfall. The food of the higher castes, except Kshatriyas, is entirely vegetable, with the addition of milk and ghee or clarified butter, which is used largely in the preparation of their dishes. Rice is generally the food of the wealthy and is boiled sometimes with only so much water as it will absorb in the cooking, and sometimes with more, so that the residue is strained off and kept as a refreshing drink called conjee. With the rice are eaten dholl, ghee, various vegetable curries, chillies, fresh fruits, sugar, &c. The dholl is first eaten together with a little of the rice; then the server pours over the remainder as much pepper-water as it will absorb; and this is eaten with the curries and other things. A fresh help of rice is then given, and being soaked with butter-milk ends the meal. In the evening, but

CHAP. IV. CUSTOMS. Food.

never in the morning, milk with a few takes the place of butter-milk. The amount of raw-rice necessary for a meal is from half to three-quarters of a pound.

Most of the Súdra castes take meat, and particularly in the shape of fish, for the evening meal. The meat is taken curried with the rice in the place of dholl.

Fully three-fourths of the population hardly ever touch rice, but eat some one of the cheaper grains, ragi, cholum, or cumbu. These are ground into flour and, being sometimes mixed with a little broken rice, are boiled into a thick paste (Tam. *kali;* Tel. *sankati*) or into a stiffish gruel (Tam. *kúlu;* Tel. *ambili*). The former is made into large balls and eaten with soup of salt-fish or dholl, mango and other pickles being added as a relish, and butter-milk being drunk with it. In chilly damp weather the flour instead of being made into paste or gruel is almost always for the evening meal baked into cakes. A hard-working adult man in good times is able to take about 2 lbs. of dry grain per diem. Cakes of various grains are also eaten on special occasions. The most common kinds are called in Tamil *dósai, appam, póli, vadai, ámavadai, sómási, paddarpéni, púri, laddu, jillebi, atirasam,* &c. These are not ordinarily taken except at feasts, and are then eaten with the rice between the pepper-water and butter-milk courses. The *dósai* is made of rice and black-gram soaked in water and allowed to ferment for a day or two, and then baked into flat cakes. Bráhmans eat these on fasting days when they may not sit down to a regular meal. *Appams* are much the same as *dósais*, but toddy and cocoanut milk are added, and so Bráhmans will not touch them. The *vadai* is formed of black-gram roughly ground, soaked in water with salt, pepper, chillies, and saffron and baked before fermentation. *Ámavadai* is much the same, but cooked with butter-milk. *Póli*, *sómási*, and *paddarpéni* are cakes in which wheat is the chief ingredient.

CASTE. Introductory.

The census statistics of caste will be found in the second volume, and from these it will be seen that the number of separate divisions is very large. These divisions are in part based on function and in part represent the old tribal divisions of the Dravidian people. The Brahmanic differentiation into the four castes of Bráhmans, Kshatriyas, Vaisyas and Súdras is, of course, wholly inapplicable to the population of the south, if indeed it were ever applicable to any considerable section of the inhabitants of India. It has, however, exerted a certain amount of influence, which is shown by the claims of purely Dravidian tribes to the rank of Vaisyas, Kshatriyas and even Bráhmans, and by the

CHAP. IV. CASTE. Introductory.

exclusion from the pale of caste altogether of such tribes as the Paraiyans and Málas, the Mádigas and Chakkiliyans, &c. It is difficult to lay down any rule as to what constitutes a separate caste. Speaking broadly it is a group the members of which may intermarry and eat together, but some of the larger castes, such as the Bráhmans and Vellálas, contain sub-divisions which are practically separate castes, for the members will not intermarry, and sometimes will not even eat, with members of other sub-divisions of the main caste. In popular language, however, the larger group is taken to be a caste and in the following pages the ordinary usage has been adopted.

PRIESTLY CASTES. Bráhman.

Bráhmans number about 46,500 in North Arcot or 2·1 per cent. of the population. About one-third of the whole number are proprietors of land; the rest employ themselves as priests, writers, accountants, merchants, &c., while not a few subsist by begging. Many of the prejudices of the caste are disappearing, and it is not now an unknown thing to see a Bráhman guiding a plough with his own hands, or serving as a porter upon the railway. Few of them are in affluent circumstances, but most are fairly well off.

Almost all of the North Arcot Bráhmans are Drávidas, or southern Bráhmans, but a few Gaudas from Northern India are found in Tirupati and other large towns. Of the Drávidas the Ándhra, Mahrátta, Karnátaka and Drávida divisions are all represented. They may eat together, but never intermarry. Each division contains numerous sub-divisions, the chief of which are shown in the following table:—

Territorial divisions.

(i) Ándhra or Telugu		1. Ándhra Vaishnava. 2. Gólkonda Vyápári. 3. Karnakamma. 4. Murikinádu. 5. Niyógi. 6. Telaghánya. 7. Vaidíki. 8. Velanádu.
(ii) Drávida or Tamil.	Smártas ..	9. Ashtasahasram. 10. Brahacharanam. 11. Gurukkal. 12. Kónasímai Drávida. 13. Sivadvija. 14. Vadama.
	Vaishnavas ..	15. Tengalai. 16. Vadagalai.

CHAP. IV.
PRIESTLY CASTES.
Bráhman.

Territorial divisions—cont.

(iii) Karnátaka or Canarese	17. Áruvélu. 18. Aravattivakkalu. 19. Badaganádu. 20. Karnátaka.
(iv) Maharáshtra or Maráthi	21. Désasta.

The Drávidas proper form the bulk of the Bráhman population of North Arcot, and are most numerous in the taluks south of the Pálár, where they were allowed a remission of ten per cent. in their assessments until some twenty years ago.

The ARAVATTI VAKKALU sub-division contains both Smártas and Mádhvas. It was formerly an isolated community consisting of sixty houses in the Ceded Districts.

ÁRUVÉLUS are Mádhvas and Niyógis. The sub-division originally contained 6,000 (*áru vélu*) families.

The ASHTASAHASRAM Bráhmans were invited to the south by a Chóla king, who granted them lands and privileges. The name refers to the number (8,000) of the original colony.

Of the BADAGANÁDU Bráhmans, some are Smártas and the rest Mádhvas. The name means 'north country.'

The BRAHACHARANAM division is one of the largest classes of the Smárta section. The story concerning their migration to the south is that Agastya had been engaged for the performance of a great sacrifice by a Pándiya king, who sent invitations to Bráhmans in distant places to attend. Those who received the notice early came away at once, but those who got it later and had farther to come did not arrive till the ceremonies had begun. From this circumstance the former got the name of *Brahatcharanam* 'the big-striders' or 'fast-walkers.'

DÉSASTAS are Mahrátta Bráhmans; many are descendants of the Bráhmans who followed the Mahrátta invaders of Tanjore.

GÓLKONDA VYÁPÁRIS claim to belong to the Vaishnava community and follow their customs in every respect. But the Vaishnavas treat them as a distinct class inferior to them.

GURUKKALS and BHATTANS are generally priests and thought to be an inferior class. A strict Bráhman will refuse to eat with them.

MAHRÁTTA Bráhmans are numerous in the district and are cunning in accounts as in everything else. They have secured a large share in the civil administration of the country, and take the place of the Karnam caste in villages above the gháts. So numerous were they in the public service that the vernacular official language of the district continued to be Mahrátta until 1854.

PRADHAMASÁKHA Bráhmans are much looked down upon by all other Bráhmans who say that they are Chandálas at midday. They are, therefore, never visited except in the early morning or after sunset.

Jangam.

Jangams are the priests of the Lingáyats. The full name of the caste is 'Jangama Lingáyat' meaning those who always worship a movable *lingam* in contradistinction to the *stháвara* (immovable) *lingam* of the temples. Most of these Jangams are in fact beggars. They will eat indiscriminately with any other classes of Hindus, and they drink spirits and generally eat flesh. Their marriage ceremonies resemble those of the Kápus and other similar castes. Girls are married either before or after they have attained maturity. Widow marriage is not practised. The dead are invariably buried, and the only funeral ceremony with them is the worship of the burial-ground and of the image of Siva for the first ten days after death. Their titles are *Jangam*, *Dévara*, *Lingam* and *Aiya*.

Pandáram.

Pandáram is the name rather of an occupation than a caste and is used to denote any non-Brahmanical priest. The name *pandáram* (Skt. bhándágáram) literally means a treasury (temple treasury) wherein were employed those who had renounced the world. The Pandárams seem to receive numerous recruits from the Saivite Súdra castes, who choose to make a profession of piety and wander about begging. They are in reality very lax in their modes of life, often drinking liquor and eating animal food furnished by any respectable Súdra. They often serve in Siva temples, where they make up garlands of flowers to decorate the lingam, and blow brazen trumpets when offerings are made or processions take place. Tiruttani is one of the chief places in which Pandárams congregate.

Pújári.

Pújári again is not a caste but a name applied to a class of priests, who mostly preside in the temples of the female deities—the Gráma Dévatas or Úr Ammas already described—and not in those of Vishnu or Siva. They do not wear the sacred thread except on solemn occasions. They are usually weavers or of one of the artisan castes.

Valluvan.

Valluvans are the priests to the Paraiyans and Pallans. They were apparently priests to the Pallava kings before the introduction of the Bráhmans, and even for some time after it. Tiruvalluvar, the famous Tamil poet, author of the Kural, belonged to this caste, which is usually regarded as a sub-division of Paraiyans. He refused to acknowledge the distinctions of caste, and succeeded in obtaining a Vellála woman as his wife, from whom

CHAP. IV. PRIESTLY CASTES. Valluvan.

a section of the Valluvans, say they, has its descent. As their ancestor amused himself in the intervals between his studies by weaving, they employ themselves in mending torn linen, but chiefly live by astrology and by acting as priests of Paraiyans and officiating at their funerals and marriages though some refuse to take part in the former inauspicious ceremony, and leave the duty to those whom they consider impure Valluvans called Paraiya Tádas. Another section of the Valluvans called Álvár Dásaris or Távaḍadháris (those who wear the necklace of *tulasi* beads) claim descent from Tiruppán Álvár, one of the twelve Vaishnava saints and a Paraiya by birth. Both Saivites and Vaishnavites eat together, but do not intermarry. Unlike Paraiyans they forbid remarriage of widows and even polygamy, and all males above twelve years of age wear the sacred thread. They will eat all flesh except beef and pork. They are sometimes called Pandárams.

TEMPLE SERVANTS. Sátáni.

Sátánis are a class of temple servants, the word being a corrupt form of *Sáttádavan*, which literally means 'one who does not wear' (*s.c., the sacred thread and tuft of hair*). This is a mixed religious sect recruited from time to time from other castes excepting Paraiyans, leather-workers, and Muhammadans. It is sometimes stated that the Sátánis of the Madras Presidency are the disciples of the famous Bengal reformer Chaitanya, from whom, they say, the term Sátáni took its origin. But this supposition appears to rest on no better foundation than the similarity of sound in the two names, and it seems to be more than doubtful, for there is no evidence of Chaitanya having ever preached in the Dravidian country, and the tenets of the Sátánis of this presidency differ widely from those of the followers of Chaitanya.

All Sátánis are Vaishnavites, but principally revere Báshyakár (another name for Rámánuja), whom they assert to have been an incarnation of Vishnu. There are three religious divisions, *Ékákshari*, *Chaturákshari* and *Ashtákshari* meaning respectively one, four and eight syllables. The first believes that God (*Óm*) is in themselves and do not worship any idols put up in temples; the second believes that faith in the guru (*Rá-má-nu-ja*) is a necessary qualification to secure eventual salvation; while the third adds faith in the deity (*Óm-na-mó-ná-rá-ya-ná-ya*). There are also other sub-divisions and the members of the various sections do not eat together or intermarry.

The Sátánis are almost entirely confined to the larger towns. Their only legitimate occupations are performing menial services in Vishnu temples, begging, tending flower gardens, selling flower garlands, making fans, grinding sandalwood into powder, and selling perfumes. They are the priests of some Súdra castes, and

in this character correspond to the Saivite Pandárams. Widow remarriage is not permitted. Some burn and some bury their dead.

CHAP. IV.
TEMPLE SERVANTS.

Bhógam.

Bhógam, Telugu; **Dási** or **Dévadási,** Tamil: These are the dancing girls of the Hindu temples and their offspring. Originally they are said to have been a body of vestal virgins, whose duty it was to fetch water, sweep the temple, and ornament its floor with devices in rice-flour; but after a time they became degraded in moral character, and this was acquiesced in, as it was considered a means of protecting respectable women from insult. They are without exception prostitutes, and some, who are attached to temple establishments, dance and sing before the idol, fan him, and hold before him the sacred light called 'Kumbhárati.' Their sons are often musicians and teachers of dancing, but many after attaining manhood call themselves Balijas, and taking a wife from that caste, settle down respectably. They are called in Telugu Bhógam, because they are women of pleasure (*bhógam*), and in Tamil Dási or Dévadási (servants of god), on account of their occupation in temples. Temple dancing girls receive a fixed allowance out of the endowment, and some are the concubines of one of the priests or of some native of consideration, while others are common women, as are all who do not serve in the temple. Though they are not allowed to marry, they go through a marriage ceremony which is rather a costly one. Sometimes a wealthy native bears the expense, makes large presents to the bride, and receives her first favours. Where no such opportunity presents itself, a sword or other weapon represents the bridegroom and an imaginary nuptial ceremony is performed, after which the woman is free to associate with castemen, but not with foreigners or outcastes, though some are not particular in this respect. Should the Bhóga woman have no daughter, she invariably adopts one, usually paying a price for her, the Kaikóla caste being the ordinary one from which to take a child; but boys are never adopted. Daughters follow their mother's trade and inherit her appointment in the temple if she should hold one. Most of this class are well to do and some very wealthy, having large stores of jewels for personal adornment. Since they may not marry, they can never become widows, and are on this account called 'dírga sumangalis' or perpetual matrons. One of the chief desires of a Hindu bride is to be a sumangali all her life, and to attain this object her new cloths and táli are at her marriage passed round, to be touched and blessed by all the sumangalis present. Those who have been long in this happy state are held to be better able to confer the blessing of lengthened sumangalihood than younger married

CHAP. IV. TEMPLE SERVANTS. Bhógam.

women, but a dancing girl who can never be a widow has the greatest power of blessing the bride. One of this class is therefore always her companion, a sort of head bridesmaid, and she further gives her hints as to how she should behave to secure her husband's affection by graceful movements and other blandishments. The lower sorts of Súdras are most superstitious on this subject, and always try to purchase their tális from some dancing girl. Bhógams can eat in any house except that of a Pariah, Chuckler, or Muhammadan.

TRADERS. Balija.

Balijas are a numerous trading caste of Telugu origin. The name is derived from the Sanskrit words *bali*, a sacrifice and *ja*, born, signifying that the Balijas owe their origin to the performance of a *yágam*. Their legend describes how one Dákshâyani, daughter of a saint named Dakshaprajápati, dissatisfied with the ornaments bestowed upon her by her father desired more. Her father consulted Brahma as to how he might satisfy her, and the young woman was by the deity directed to perform a yágam. With the assistance of a Bráhman she did this, and from the sacrificial flames issued a personage bearing glass bangles, turmeric, and other auspicious articles, which he bestowed upon the girl. She accepted and wore them, directing that all women for the future should use similar ornaments. The person who sprung from the yágam became the ancestor of the Balijas, who are sometimes called Gauriputras, or sons of a woman, since their remote ancestor was the result of a woman's yágam. Originally the caste would seem to have been solely employed in making bangles, pearl or coral ornaments, and other sorts of female adornments; but now the greater part engage in agriculture.

The caste contains many sub-divisions, usually named after their ordinary occupations or the countries they inhabited in times past. Thus the Chetti Balijas or Désáyi Chettis were traders in the days of the Hindu kings; Gázulu (Tam. 'Valaiyal') Balijas were originally engaged in the manufacture of glass bangles; Mulaka means the deadly nightshade; the Rájamahéndram Balijas hail from Rajahmundry; and Telaga merely indicates the Telugu origin of the caste. The Rálla or Ratnála Balijas sell precious stones, the Mutyála Balijas sell pearls, and the Pagadála Balijas sell coral. One sub-division, the Múta Kammala Balijas, derive their name from the peculiarly-shaped earrings which they wear. A very inferior division of the caste is known as the Uppu or Perike Balijas, who generally carry about salt on donkeys in panniers (perike), but not many of these are found in North Arcot. These divisions may intermarry, but there are a number of exogamous septs or gótrams. The following is a list of the names of some of these.

Appala.	Nemali.
Ávula.	Pagadála.
Bháradhwája.	Padila.
Gandham.	Pallavándla.
Janakula.	Pasupuléti.
Jilakara.	Ratnála.
Márédu.	Sáliya.
Miriyála.	Ungarála.
Mutyála.	Yenumula.
Nárikélla.	Yéjólla.

Some of these are possibly of totemistic origin, though no trace of totemism now remains. A further exogamous grouping is shown by the house names, for intermarriage between persons bearing the same house name is strictly prohibited.

The vernacular of the caste is Telugu, and their worship is that of Vishnu combined with Gouridévi, their patron goddess. Widow remarriage is disallowed, but flesh-eating and the drinking of spirits are freely permitted; indeed the latter forms an important feature in their social ceremonies, and a common proverb says 'Balija biḍḍa puṭṭa vale baṭṭáyi buḍḍi koṭṭa vale' (if a man be born a Balija, he must crack the arrack bottle).

The caste affixes are *Naidu* and *Chetti*, the latter implying superiority and being justly claimable only by those who are descended from the heads of the caste, but many not strictly entitled to the distinction often assume it. The caste is regarded as rather a mixed one in North Arcot, as persons of impure descent are admitted into the society without scruple. A few families who have more recently come to the country from the north are more particular, and hold themselves aloof from other nominal Balijas.

The Chettis, also called Désáyi Chettis, among them, are regarded with particular respect not only by Balijas, but by Súdra castes belonging to the right-hand division. They settle all disputes among the Balijas, Gollas, Pallis and Málas, and collect small fees during time of marriage, death, &c. They are said to have been entrusted by the Nabobs with the above powers.

Kavarai.

Kavarai is simply the Tamil name for Tamilized Balijas, being a corrupt form of Gauri, the patron deity of the caste. They maintain the manners and customs of the Balijas, but often speak Tamil rather than Telugu, calling themselves Náyakkan.

Linga Balija.

Linga Balija appears rather to be the name of the followers of a religious faith than of a distinct caste; for, the Linga Balijas state that their caste contains eleven sub-divisions, each with a separate occupation, viz., Jangam (priests), Reddi (cultivators), Gándla (oil-mongers) and the like. It was apparently

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TRADERS.
Linga Balija.

a mixed caste started by Basava, the founder of the Lingáyat religion, who is described as the son-in-law of the prime minister of the Rájá of Kalliánpúr in Canara. As it is not unusual for Hindus of mixed descent to claim the title Balija, the name seems to have been applied to the new mixed caste with the prefix of the name of the object of their worship.

Almost all the Linga Balijas of North Arcot are traders, who speak Canarese and are immigrants from Mysore, in which province their gurus live, and whither they still refer their caste disputes. At one time they enjoyed much importance in this district, particularly in its large trading towns. Headmen among them, styled Chettis, were by the Arcot Nabobs assigned districts in which they possessed both magisterial and civil authority, and levied taxes from other merchants for their own personal use. They carried on very extensive trade with Mysore and the Ceded Districts, and are said to have had enormous warehouses which they enclosed and fortified. Breaches of the peace are also described as not infrequent, resulting from the interference of one Linga Balija Chetti, with matters relating to the district of another. Their authority has long since disappeared, and is only a matter of tradition. Every Linga Balija wears a Siva lingam usually encased in a silver casket and suspended from the neck; but the very poor place theirs in a cloth, and sometimes tie it to their arm. It is a strict rule that one should be tied to a child's neck on the tenth day of its birth; otherwise it is not entitled to be classed as a Linga Balija. The Siva lingam worn by these people differs from the Búta or Préta lingams used by Pandárams, Kaikólans, or others, who profess the Lingáyat faith. They acknowledge two puránams called, respectively, the Siva and Basava puránams, and differ in very many respects from other Hindus. They bury and do not burn their dead, and do not recognize the five kinds of pollution or sútakam resulting from a birth, a death, spittle, &c., and they do not, therefore, bathe in order to remove such pollution. Widow remarriage is allowed even where the widow has children, but these are handed over to the relatives of her first husband. To widow remarriages no women who are not widows are admitted, and similarly when a maiden is married all widows are excluded. Unlike most Hindus, Linga Balijas shave off the whole of the hair of their heads without leaving the usual lock at the back. They deny metempsychosis and believe that after death the soul is united with the divine spirit. They are particular in some of their customs, disallowing liquor and flesh-eating, and invariably eating privately where none can see them. They decline even to eat in the house of a Bráhman. Their titles are Appa and Aiya.

Kómati.

Kómati.—The members of this caste wear the sacred thread and profess to be of pure Vaisya descent, a claim which is by no means admitted by other Hindus. They live entirely by trade, in which they are eminently successful, and are among the most wealthy men in the district; they enjoy an unenviable notoriety for sharp practice and fraud, and are doubtless cunning, over-reaching, and unscrupulous in their business. The meaning of the name has been variously explained, but none of the etymologies is satisfactory. The ordinary tradition of the origin of the caste is not fit for publication, but it asserts that Kómatis are the descendants of a Bráhman woman by a chuckler or cobbler. It is a fact, though many Kómatis deny it, that at their marriage ceremonies they have to present betel-nut and leaf to some chuckler family, and this custom goes to confirm to some extent the imputation cast upon their descent. They are proverbially timid and cowardly. A Telugu proverb says, 'Kómati piriki koṭṭité úriki' (if you strike a Kómati coward, he always runs away), and one name for the caste is Dhaniála Játi or coriander-seed caste, because the coriander before being sown is always rubbed hard with an old shoe, and the idea is that a Kómati should always be thus roughly treated in order that his natural timidity may keep in check his desire to over-reach.

The caste contains many exogamous gótrams and is also divided into two large groups, Smártas and Vaishnavas. Intermarriage and eating together is allowed, but no Kómati will eat with any other caste. Telugu is their vernacular; girls are always married during childhood; widow marriage is forbidden, as are flesh-eating and spirit-drinking. In keeping to these rules they are very particular, and they have a strong caste-sympathy with one another which leads to none of them ever coming to want. Should a Kómati fail, his caste men raise a subscription and start him in life again.

The sacred volume of the caste is called the Kanniká Puránam, which accounts for the chief object of their worship—a goddess named Kanniká Paraméswari. She, it appears, was a handsome Vaisya or Kómati maiden whose beauty attracted the ruler of her country, who desired to receive her in marriage, but was refused. When he contemplated force the young girl resolved to commit suicide, and calling her people together enjoined them to revere and worship her as a deity, and then threw herself upon a kindled pyre. She is now worshipped by the whole caste who perform annual ceremonies in her honour.

One of the customs among Kómatis is that which renders it the duty of a man to marry his uncle's daughter, however sickly and

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Béri Chetti.

deformed she may be. This custom, which is known as Ménarikam, is followed in a number of Dravidian castes, but it is perhaps more strictly observed by Kómatis than by others.

Béri Chettis, though disparaging stories are not told of them, appear in many respects similar to the Kómatis, but they will not admit that the latter are on a par with them, and declare that they alone represent the true Vaisya stock. On this account they call themselves Béri Chetti or the principal merchants. They have a legend, somewhat resembling that of the Kómatis, which states that Kávéripuram near Kumbakónam was formerly the town in which the caste principally resided. The king of the country attempted to obtain a Béri Chetti maiden in marriage, but was refused, and he therefore persecuted them and drove them out of his dominions, forbidding interchange of meals between them and any other caste whatever—a prohibition which is still in force.

The caste bases its claim to a true Vaisya descent upon the following grounds:—In the time of the Chólas they erected a water-pandal and Kómatis claimed the right to use it, which was at once denied. The king attempted to solve the question by reference to inscriptions in the Kámákshiamma temple in Conjeeveram, but without success. He then proposed that the rivals should submit to the ordeal of carrying water in an unbaked pot. This was agreed to, and the Béri Chettis were alone successful. The penalty for failure was a fine of Rs. 12,000, which the Kómatis could not pay, and they were therefore obliged to enslave themselves to a Béri Chetti woman who paid the fine. Their descendants are still marked men, who depend upon Béri Chettis for their subsistence; the great body of the Kómatis in the country were not parties to the agreement, and they do not now admit that their inferiority has ever been proved.

The caste is divided into several territorial classes, but all these may freely intermarry. Some worship Siva and some Vishnu, and a few are Lingáyats who do not marry into families with a different worship. They bury, while the others burn, their dead. All the divisions wear the sacred thread and do not tolerate widow remarriage. Unlike Kómatis, their daughters are sometimes married after puberty.

Labbai.

Labbais are a Muhammadan trading caste. By the Musalmans they are looked down upon as the offspring of men of their caste by Hindu mothers, and doubtless many of them are of such descent. Some of the Labbais, however, assert that, like the Máppillas of the west coast, they are the descendants of trading Arabs by Hindus. The Naváyats (a very respectable section of

Labbai.

Musalmans) believe that the Labbais are the offspring of the Abyssinian slaves whom their ancestors brought from Arabia about a thousand years ago. The name is clearly of Arabic origin, being a corruption of *Labbeik*, 'here I am!' the exclamation of a servant when called by his master, and this corroborates the Naváyats' account. They are very particular Muhammadans, and many belong to the Wahábi section. Adhering to the rule of the Korán, most of them refuse to lend money at interest, but get over the difficulty by taking a share in the profits derived by others in their loans. They are, as a rule, well to do and excellently housed. The first thing a Labbai does is to build himself a commodious tiled building, and the next to provide himself with gay attire. In dress they resemble the Hindus, but wear a peculiar fez-like cap made of coloured grasses. They seem to have a prejudice against repairing houses, and prefer letting them go to ruin and building new ones. The ordinary Musalmans appear to entertain similar ideas on this point.

ACCOUNTANTS. Karnam or Kanakkan.

Karnam or **Kanakkan** is a Tamil caste of accountants found chiefly in the districts of North Arcot, South Arcot, and Chingleput. The name is derived from the Tamil word *kanakku*, which means an account. They were employed as village accountants by the ancient kings. In the inscriptions the word *karanam* or *kanakkan* occurs very often and their title is invariably given as Vélán, which is possibly a contracted form of Vellálan. These accountants of the Tamil districts seem to be quite distinct from those of Ganjám and other Telugu provinces, some of whom claim to be Kshatriyas or even Bráhmans. It is true the Karnams themselves claim to be the sons of Brahma, but others maintain that they are the offspring of a Súdra woman by a Vaisya.

The caste is said to have four divisions—Sír, Sarattu, Kai-kátti, and Sólia; the two last of which are not represented in this district. The Sír Karnams are considered of highest rank and are generally the most intelligent accountants, though they are sadly deficient when compared with the Bráhmans who perform their duty of keeping the village accounts above the ghâts. The Kai-kátti Karnams derive their name from a peculiar custom existing among them by which a daughter-in-law is never allowed to speak to her mother-in-law except by signs: the reason may perhaps be surmised. The members of the four divisions cannot intermarry.

In their customs the caste is somewhat particular. They wear the thread, disallow liquor-drinking, flesh-eating and widow remarriage, and will eat in the house of no other caste except Bráhmans. Most of them worship Siva, but there are some who are Vaishnavites, and a very few are Lingáyats.

CHAP. IV. HUSBANDMEN.

Kshatriya.

Kshatriya has been returned as the caste of about 10,000 persons, but it need hardly be said that most of these have no real claim to the title, for the bulk of them are pure Dravidian people. There may possibly be a few representatives of the old Kshatriya caste, though it is not possible to pick out the genuine from the pseudo-Kshatriyas.

Rájput.

Rájputs.—There are but few of this caste in the district and they chiefly reside in Vellore; a few families are also found in Chittoor and Tirupati. They assert that they are true Kshatriyas who came from Rájputana with the Muhammadan armies, and they, more than any other claimants to a Kshatriya descent, have maintained their fondness for military service. Almost all are sepoys or military pensioners. Their names always end with Singh, and in many of their customs they resemble the Muhammadans, speaking Hindustani and invariably keeping their wives gosha. They are often erroneously spoken of by the people as Bondilis, a term which is applicable only to the Vaisya and Súdra immigrants from Northern India; but doubtless many of these lower classes have taken the title Singh and called themselves Rájputs. Members of the caste are, therefore, very suspicious of strangers professing to be Rájputs. Their cooking apartment, called chowka, is kept most religiously private, and a line is drawn around it beyond which none but members of the family itself may pass. At marriages and other feasts, for the same reason, cooked food is never offered to the guests, but raw grain is distributed, which each cooks in a separate and private place.

Rájputs have an abhorrence of the flesh of the fowl, as strong as that of the Muhammadan of the pig, as they consider the bird to be a filthy feeder. They differ from other Hindus in some of their customs: for instance, their marriage pandals or booths must be made with mango posts and not with those of the *Ficus religiosa*, and the bride and bridegroom must walk round it seven times, a ceremony which does not exist among other castes.

Rázu.

Rázus are the most numerous class of those who claim to be Kshatriyas in North Arcot. They are found almost entirely in the Kárvetnagar estate, the zemindar being the head of the caste. As a class they are the handsomest and best-developed men in the country, and differ so much in feature and build from other Hindus that they may usually be distinguished at a glance. They seem to have entirely abandoned the military inclinations of their ancestors, never enlist in the native army, and almost wholly occupy themselves in agriculture. Their vernacular is Telugu, since they are immigrants from the Northern Sircars, from whence most of them followed the ancestors of the Kárvetnagar zemindar within the last two centuries. In religion they are mostly Vaishna-

Rázu.

vites, though a few follow Siva, and the worship of village deities forms a part of the belief of all. Their peculiar goddess is called Nimishámba, who would seem to represent Párvati. She is so called because in an instant (nimisham) she once appeared at the prayer of certain rishis and destroyed some rákshasas or giants who were persecuting them.

Claiming to be Kshatriyas, the Rázus of course assume the sacred thread and are very proud and particular in their conduct, though flesh-eating is allowed. Girls should be married before puberty. The remarriage of widows is strictly prohibited, and divorce is allowed only in the case of adultery by the wife. In all the more well-to-do families the females are kept in strict seclusion.

Bondili.

Bondilis are foreigners from Bandelkand, from which fact their name originates, and are of various Vaisya and Súdra castes; the former having the termination Lála to their names, and the latter that of Rám. Many of the Súdra Bondilis however improperly take the title Singh, and say they are Kshatriyas, that is, Rájputs. The Vaisya Bondilis are few in number and only found in Vellore, Chittoor, and Arni, where they are usually money-lenders. The Súdras are mostly sepoys, constables, or revenue peons. Some say that they are not even Súdras, but the descendants of Rájputs by women of the country, and probably many of them are such. All are very particular with respect to eating with another professed Bondili, and refuse to do so unless they are quite certain that he is of their class. In their marriage customs they resemble the Rájputs.

Marátha.

The term **Maráthi** is usually applied to the various Marátha Súdra castes which have come south; their caste affix is always Rao. It is impossible to discover to what particular Súdra division each belongs, for they do not seem to know and most take advantage of being away from their own country to assert that they are Kshatriyas, a claim which is ridiculed by other castes. In marriages they are particular to take a bride only from within the circle of their own family, so that a mixture of the original castes is thus avoided. Their language is Maráthi, but they speak Telugu or Tamil as well, and engage in most professions. Many are tailors. Others enlist in the army, in the police, or as peons, and some take to agriculture or trading. They are of middle stature, but active, robust, industrious, and intelligent. In their customs they much resemble the Rangáris. They are frequently but erroneously called Bondilis.

Vellála.

Vellálas form the bulk of the cultivating population in the southern taluks of the district, and number about 150,000. The name is derived from *vélánmai* (agriculture), which is their usual

CHAP. IV. HUSBANDMEN. Vellála.

occupation, though some engage in trade and are employed in the public service and other walks of life. They have no caste puránam, but are referred to in the Brahmánda puránam. The story told of their origin is this. Many thousands of years ago, when the inhabitants of the world were rude and ignorant of agriculture, a severe drought fell upon the land, and the people prayed to Bhúdévi, the goddess of the earth, for aid. She pitied them and produced from her body a man carrying a plough, who showed them how to till the soil and support themselves. His offspring are the Vellálas, who aspire to belong to the Vaisya caste, since that includes Góvaisyas, Bhúvaisyas, and Dhanavaisyas (shepherds, cultivators, and merchants). A few therefore constantly wear the sacred thread, but most put it on only during marriages or funerals as a mark of the sacred nature of the ceremony. The ordinary title is Mudali, but some are called Kavandan or Gounden. To address them as Mudali is considered discourteous, for that is the title of a weaver also. The caste is believed to have been first introduced into this part of India by the Chólas after their conquest of the Kurumbas. Those in North Arcot are looked down upon by the Vellálas of the more southern districts, since they are careless of caste rules; and while admitting that flesh-eating is improper, freely indulge in it, though spirit-drinking is condemned by all.

They have several endogamous sub-divisions, the chief of which are Agamudi, Káraikkát, Kondaikatti, Púnamalli, Tondamandalam and Tuluva. The *Agamudis* are probably the Agamudaiyans described below and the fact that these people consider themselves to be Vellálas shows how loosely that term is used in this district. The *Káraikkát* Vellálas are immigrants from the southern districts. The word is said to mean 'Vellálas that saved or protected the clouds,' and the mythological origin of the name is as follows. In the reign of Ugra Pándiya there was a terrible famine which continued for twelve years. The king provoked at this, imprisoned all the clouds for their neglect of duty. Indra, god of clouds, requested the Pándiya king to release them, but he refused to comply until somebody stood as a guarantee for their faithful performance of their duty of sending rain to his kingdom. Some Vellálas came forward, and ever since that time they have been known as Kárkátta Vellálas. The *Kondaikatti* Vellálas consider themselves as the highest and proudest, because during the nabob's government they were employed in the public service. They are extremely strict in their customs, not allowing their women to travel by any public conveyance and punishing adultery with the utmost severity. The *Púnamalli* Vellálas take their name from the town of Púnamalli (Poonamallee), an old military station near Madras. They are a branch of the Tondamandalam sub-

Vellála.

division. The latter takes its name from Tondanádu, the ancient Pallava country. The settlement appears to have taken place in the ninth or tenth century A.D. They are generally considered to be of somewhat superior standing to other Vellálas. They are very strict in the observance of caste rules and are vegetarians, though some of them eat flesh now-a-days. The *Tuluva* Vellálas are immigrants from the Tulu country, a part of the modern district of South Canara. Mr. Nelson is of opinion that these are the original Vellálas, who were invited to Tondamandalam after its conquest by the Chóla king Ádondai Chakravarti. The sub-division, called the Kummidichatti Vellálas, has disappeared at least in name. They were regarded as low in position. The term was applied in consequence of their custom of carrying a chatty of fire for all other Vellálas, to be used at funerals for cremation. In default of the Kummidichattis, ordinary Vellálas now have to carry their own fire for funerals. Most Vellálas are in well-to-do circumstances, but the loss of the village mirási rights, which they alone formerly possessed, combined with a litigious and somewhat idle character, have made them less prosperous than they must formerly have been.

Agamudaiyan.

Agamudaiyan is a class of cultivators differing widely from the Agamudaiyans of the Madura district. The former are closely allied to the Vellálas, while the latter are usually regarded as a more civilized section of the southern Maravans. It may possibly be that the Agamudaiyans of North Arcot are the descendants of the first immigrants from the district of Madura, who, after long settlement in the north, severed all connexions with their southern brethren and posed as Vellálas. An old Tamil proverb says 'a Kallan became a Maravan, the Maravan became an Agamudaiyan, and the Agamudaiyan became a Vellála.'

Malayáli.

Malayáli is a Tamil-speaking hill tribe, engaged in agriculture and found in several villages lying upon the Javádi Hills in the Vellore and Pólúr taluks. The account they give of their origin is as follows. In S.S. 1055 [2] (1132 A.D.) some of the Védars of Kangundi asked that wives should be given them by the Káraikkát Vellálas of Conjeeveram. They were scornfully refused, and in anger kidnapped seven young Vellála maidens, whom they carried away to Kangundi. To recover them seven Vellála men set out, with seven dogs, leaving instructions with their wives that if the dogs returned alone they should consider that they had perished, and should cause their funeral ceremonies to be performed. Arrived at the Pálár, they found that river in

[2] Another account gives 1692 A.D., which is more probable.

CHAP. IV. HUSBANDMEN. Malayáli.

flood and crossed it with difficulty; but their dogs, after swimming half way, turned back and returned to Conjeeveram. These men, however, continued their journey and killed the Védars who had taken away their maidens, after which they went back to their homes, but found that they had been given up as lost, their wives had become widows, their funeral ceremonies performed, and they were in consequence outcastes. Under these circumstances they contracted marriages with some Védar women and retired to the Javádis by way of Arni and Padavéd, where they took to cultivation and became the ancestors of the Malayáli caste. This account has long been preserved by the Malayális in a small palm-leaf book, which none can read, as all are utterly ignorant of letters.

The Malayális returned themselves at the last census as Káraikkát Vellálas and the name Maláyali is not found in the census tables. They are distinct from the Malayális of South Arcot, who call themselves Kongu Vellálas. The North Arcot Malayális occupy eighteen *nádus* or 'districts.' The Náttán (headman) of Kanamalai Nádu is called the Periya (big) Náttán and is the head of the caste. He has power to nominate náttáns for other nádus, to call caste pancháyats, to preside over any such meetings, and to impose fines and to excommunicate any Malayáli. He can inflict corporal punishment, such as a whipping with a tamarind switch, on those persons who violate their tribal customs. This power is sometimes delegated by him to the other náttáns also. Of the fines thus collected the Periya Náttán takes two shares and the rest is equally distributed among the Úráns (village heads). The decisions of the náttán are received with unfailing obedience.

Their houses are long, low, thatched structures, with the roof secured against the high winds prevailing on the hills by long bamboos pegged down at intervals. Each stands in a yard surrounded by a palisade of wattled bamboos. The village precincts are regarded as sacred, and even Bráhmans are desired to walk barefoot along their alleys.

They are both Saivites and Vaishnavites and worship Káli and Perumál, wearing the *námam* and sacred ashes alike. Their worship is somewhat peculiar and kept more or less a mystery. Its chief object is the goddess Káli, in whose honour they celebrate a feast once a year lasting for fifteen days. During this time no people of the plains venture near them, believing that no intruder will ever leave the spot alive. Even the Malayáli women are studiously debarred from witnessing the rites, and those who take part in them are not permitted to speak to a woman even should she be his wife. The ceremonies take place in the open air, at a particular spot on the hills, where the goddess is said to be adored

in the shape of a stone called Vellandiswámi. The nature of the rites it is difficult to learn. In the village they worship, also excluding the women, small images of Venkatéswara of Tirupati, which are carefully concealed in caskets and not allowed to be seen by people of other castes. During the worship of *Muni* (god of the field) an Irulan kills a pig and sprinkles its blood over the field.

The Malayális cannot marry out of their tribe, and it is said that a man must marry within his *katchi* or faction, though what these *katchis* are is not quite clear. There are no exogamous septs, and marriages between near relations are preferred. Before marriage a man has to serve at least for a year[3] in the house of the bride in order to receive the consent of her parents. Now and then the bride is carried off by force, but this custom is viewed with much disfavour, and the bridegroom who resorts to it must paint his face with black and white dots and carry an old basket filled with broken pots and other rubbish, holding a torn sieve over him as an umbrella, before the celebration of the marriage. Marriage ceremonies are performed without the intervention of a Bráhman and without the recital of any mantrams. The bridegroom gives the father of the bride 7 kalams of sámai, Rs. 7 in cash, and a pile of firewood sufficient for the wedding feast, which lasts for two days. On the first day the food consists of rice and dholl, and the entertainment is called 'periya virundu.' On the second day pork-curry is the meat consumed, and the feast is consequently called the 'puni virundu.' At sunrise on the third day the bridegroom produces the táli and ties it. The actual ceremony is usually performed by the náttán who acts the part of a priest. A sword is laid upon the laps of the bridal pair, and the náttán or, in his absence, an elderly man blesses the *táli* and gives it to the bridegroom who ties it round the bride's neck. The marriage tie, however, appears very loose, and infidelity within the caste, on the part of either sex, is not punished by excommunication. A wife may at pleasure desert her lawful husband and live with any other man of the caste, but all her children are considered to be those of her husband alone. Infant and adult marriages are very common. On her attaining maturity the girl is kept in a jungle for three weeks, and no one is allowed to see her. Even food is given her from a distance. During subsequent menses she has to live for a week in a hut built on the outskirts of the village. The Malayális do not burn, but bury the dead. As soon as a person dies guns are fired at short intervals till the burial is

[3] The same custom is observed by the Paniyans of Malabar, but a Paniyan has to serve only for six months.

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over. A few bundles of tobacco are also buried with the dead body. When any one falls ill the Malayális do not administer medicine, but send for a *pújári* and ask him which god or goddess the patient had offended.[4]

The Malayáli mode of saluting a fellow caste man is peculiar: each stoops and touches the ground with the hands. When a stranger of the caste approaches the village, the first man who sees him salutes him, and then relieves him of the bamboo stick which all carry. He then conducts him to his house and places the stick in a corner as a sign that the visitor shall receive hospitality in that house alone. Should, however, the visit have been particularly intended for another, the stick is handed over to the desired host, who puts it in a corner of his room, for while the stick is there the owner must feed there.

The soil of the hills is very fertile, and the Malayális have to exert themselves but little to earn a livelihood. The assessment paid to Government by them is a fixed charge for each plough or hoe possessed, without reference to the extent of land cultivated. They also collect jungle produce, particularly the pollen (kapila podi) of a certain flower, which is used by the Rangáris for dyeing silk a rich orange, and the roots of a plant called shenalinsedi, supposed to possess wonderful medicinal virtues, curing, among other things, snake-bite.

Kápu or Reddi.

Kápu or **Reddi** is a numerous Telugu cultivating caste, which is often found also in the Tamil country. Cultivation is their ordinary occupation. The name Kápu signifies a watchman, but Reddi, which is found in many forms, means a king. The Kápus or Reddis (Ratti) appear to have been a powerful Dravidian tribe in the early centuries of the Christian era, for they have left traces of their presence at various periods in almost every part of India.[5] In their customs and manners they resemble other ordinary Súdra castes. There are several sub-divisions among them, the chief being the Désúr, Morasu, Pákanáti, Palli, Panta, Pedaganti, Pókanáti, Velanáti, and Yerlam. The names of their sub-divisions are derived from their original country or their particular occupations. Thus the Désúr Reddis were apparently residents originally of some place called Désúr, though some of them derive the word from *déha*, body and *súra*, valour, saying that they were renowned for their courage. The Morasus are said to have got their name, because they used to weave mats and baskets though now they only cultivate. The Pákanáti Kápus are those

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[4] Cf. the account of the Kóyas and Savaras. The customs described above throw serious doubts on the Vellála origin of the Malayális.

[5] Their ancient kingdom was called Rett ıipádi.

Kápu or Reddi.

who came from the east country (*prák*, east and *nádu*, country). It is not known whether there is any connection between the Palle Kápus and the fisher caste of the same name, but probably there is. The Panta are so called from *panta*, a crop; the Pedagantis, from some place called Pedagallu, said to lie in the north country. Pókanáti is from the areca palm (*póka*). The Velanátis are from the foreign (*veli*) country. The last division, Yerlam Kápus, are the most peculiar of all, and are partly of Brahmanical descent. The story goes that a Bráhman girl Yerlamma, not having been married by her parents in childhood, as she should have been, was for that reason turned out of her caste. A Kápu, or some say a Bésta, man took compassion on her and to him she bore many children, the ancestors of the Yerlam Kápu caste. In consequence of the harsh treatment of Yerlamma by her parents and caste people, all her descendants hate Bráhmans with a deadly hatred, and look down upon them, affecting also to be superior to every other caste. They are most exclusive, refusing to eat with any other caste whatever, or even to take chunam from any but their own people, whereas Bráhmans will take lime from a Súdra, provided a little curd be mixed with it. The Yerlam Kápus do not employ priests of the Bráhman or other religious classes even for their marriages. At these no 'hómam' ceremony is performed and no worship offered to Vignéswara, but they simply ascertain a fortunate day and hour and get an old matron (Sumangali) to tie the táli to the bride's neck, after which there is feasting and merry-making.

Kamma.

Kammas are, like the Velamas, people who have come from the northern districts of the presidency as poligars, or in the train of such. Their tradition states that the rishis being troubled by the rákshasas, applied to Vishnu for protection, who referred them to Lakshmi. The goddess gave them a casket containing one of her ear ornaments (kamma), and enjoined them to worship it for a hundred years. At the expiry of that period a band of 500 armed warriors sprung from the casket, who, at the request of the rishis, attacked and destroyed the giants. After this they were directed to engage in agriculture, being promised extensive estates and the consideration paid to Kshatriyas. They accordingly became possessed of large territories, such as Amrávati and others in the Kistna, Nellore, and other districts, and have always been most successful agriculturists. In North Arcot they are sometimes divided into the Gandikóta, Gódajáti, and Gampajáti Kammas, names which have reference to a deadly struggle which they once had at Gandikóta, in which they were almost destroyed, but a few escaped by hiding behind a wall (góda) or in baskets (gampa). Another classification is into

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Kamma.

Pagada mukara and Bangáru mukara Kammas, the women of the former division wearing a nose ring with coral and the latter one of gold. The sub-divisions may eat together, and in the houses of Bráhmans, Kómatis, Kápus, and Velamas, but they do not intermarry. They are most industrious and intelligent cultivators, who, now that gosha has been generally abandoned, beat all rivals out of the field, a fact which is recognized by several proverbs, such as 'Kamma váni chétulu kattiná nilavadu' (though you tie a Kamma's hands, he will not be quiet). 'Kamma vándlu chérité kadama játulu vellunu' (if Kammas come in, other castes must go out), 'Kamma váriki bhúmi bhayapadutunnadi' (the earth fears the Kammas), and many others to the same effect. In addition to being industrious and well-to-do they are very proud, an instance of which occurred in the Kistna district, when the Revenue Settlement Officer offered them pattás in which they were simply called Naidu without the honorific ending 'gáru.' They refused on this account to accept them, and finally the desired alteration was made, as they proved that all of their caste were considered entitled to the distinction. In North Arcot, however, they are not so particular, though some refuse to have their head shaved, because they scruple to bow down before a barber. Besides Vishnu the Kammas worship Ganga, because they say that long ago they fled from Northern India to avoid the anger of a certain rájá who had been refused a bride from among them. They were pursued, but their women, on reaching the Mahánadi, prayed for a passage to Ganga, who opened a dry path for them through the river. Crossing, they all hid themselves in a dholl field and thus escaped from their pursuers. For this reason, at their marriages they tie a bunch of dholl leaves to the north-eastern post of the wedding booth and worship Ganga before tying the táli.

Velama.

Velama is a Telugu caste which is not largely represented in the district except in the Kálahasti division, but a few scattered families are found elsewhere, who assert that they are the descendants of dispossessed poligars. Who the Velamas were it seems difficult to decide. Some say they form a sub-division of the Balijas, but this they themselves most vehemently deny, and the Balijas derisively call them 'Gúni Sákalavándlu' (hunch-backed washermen).[6] Others say that they belong to the Kammas,

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[6] The pride and jealousy of Hindu castes was amusingly illustrated by the Velamas of Kálahasti. The Deputy Tahsildar of that town was desired to ascertain the origin of the name Gúni Sákalavándlu, but as soon as he asked the question a member of the caste lodged a complaint of defamation against him before the District Magistrate. The nickname appears to have been applied

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Velama.

but divided from them in consequence of a difference of opinion on the subject of gosha, most Velama females being now kept in seclusion. Both Kammas and Velamas before they divided are said to have adopted gosha from the Muhammadans, but finding that they were thus handicapped in their competition with other cultivating castes, it was proposed that the original custom of their ancestors should be reverted to. Those who agreed signed a bond, which being upon palm leaf, was called 'Kamma,' and from it they took their name. The dissentients retained gosha, and were therefore called outsiders or Velamas. This does not however explain what the original name of the caste was, and the truth of the story is doubtful. Since this dispute the Velamas have themselves had a split on the subject of gosha, those who have thrown it off being called Ádi or original Velamas, and the others Padma Velamas. The Velamas seem to have come south with the Vijayanagar kings, and to have been made ménkávalgárs, from which position some rose to be poligars. Now they are chiefly the hangers-on of poligars or cultivators. To distinguish them from the Vellálas in the southern taluks they call themselves Telugu Vellálas, but it seems very improbable that the Velamas and Vellálas ever had any connection with one another. They are styled Naidus.

Ékari.

Ékaris or **Yákarlu** are a class of cultivators and village watchmen, found chiefly in the northern taluks of North Arcot and in the adjoining district of Cuddapah. It is very doubtful whether the Ékaris and Mutráchas are identical castes as stated by Mr. Cox in the first edition of this book. They are said to be 'hunters and mercenaries' in Nellore, and in Cuddapah, where they are known to some as Bóyas and Kirátas, they are classed as a forest tribe. It is clear, however, that they enjoyed some authority, for several rose to be poligars. Thus the poligars of Kallúr, Tumba, Pulicherla, Bangári and Gudipáti are of this caste, and many of its members are village policemen. They do not wear the sacred thread, but employ Bráhmans as their priests. Their ceremonies differ very little from those of Kápus. They are flesh-eaters and their titles are Naidu and Dora. The caste possesses some interest as being that which had (in 1891) the highest proportion of widowed among females between the ages of 15 and 39.

Little is known of the caste history, as the people are very ignorant; but some assert that they were formerly Hindu cotton

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to them, because in the northern districts some print chintz, and carrying their goods in a bundle on their backs, walk stooping like a laden washerman. [This derivation is more than doubtful, for in the Gódávari district the name is Gúna Sákalavándlu, 'gúna' being the large pot in which they dye the chintzes—ED.]

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cleaners, and that their name is derived from the verb 'yékuta,' to clean cotton. They call themselves Naidu, or in Tamil taluks Náyakkan.

Mutrácha or Muttarásan.

Mutrácha (Tam. Muttarásan or Muttiriyan) is a Telugu caste, most numerous in the Chendragiri taluk, but found all over the district in the person of the village taliári or watchman, for which reason it is often called the taliári caste. They proudly call themselves poligars, and in Chendragiri 'doralu,' or lords, because several of the Chittoor pálaiyams were in possession of members of their caste. They seem to have entered the country in the time of the Vijayanagar kings, and to have been appointed as its kávalgárs. The caste is usually esteemed by others as a low one. Most of its members are poor, even when they have left the profession of taliári and taken to agriculture. They eat in the houses of most other castes, and are not trammelled by many restrictions. In Chendragiri they rarely marry, but form connections with women of their caste, which are often permanent, though not sanctioned by the marriage ceremony, and the offspring of such associations are regarded as legitimate. The word Mutrácha is derived from the Dravidian roots *mudi*, old, *rácha*, a king.

Pálayakkáran.

Pálayakkáran is a caste found chiefly in the districts of North Arcot and Chingleput. They were originally a hunting tribe closely allied to the Bóyas or Bédars of the Telugu and Canarese districts. The different stages of their transition from the nomadic life of a forest tribe to that of a settled community of cultivators are well preserved in the marriage ceremonies of that caste. On the first day of their marriage the bridegroom worships a Jambu (*Calyptranthes caryophyllifolia*) twig by offering milk and ghee and frankincense to it and ties it to the central pillar of the marriage booth; on the morning of the second day the married couple go in procession to an ant-hill outside the village, pour milk and ghee over it and carry home five baskets of mud from it. The bridegroom mixes the earth with water and places a lump of it at each of the twelve pillars; and on the third day the bridegroom, accompanied by some of his relations, goes to a plot of ground outside the village, taking with him two bullocks, a plough, two yokes and nine kinds of grain. He yokes the bullocks to the plough, turns up a small space of ground and sows the nine kinds of grain. Both Saivites and Vaishnavites are found in the caste, and Bráhmans are employed as *puróhits* for their ceremonies. The dead are usually burned, but burial is also practised. Their funeral ceremonies differ very little from those of ordinary castes, except that the pot of fire is

carried to the cremation ground by a Paraiyan. They are said to belong to the left-hand faction, and their marriage and other processions can only pass through the streets which are inhabited by the left-hand castes. The important sub-divisions of this caste are Muttiriyan and Vadamánji.

Tolagari.

Tolagari is a small cultivating caste who were formerly hunters like the Pálayakkárans. Nothing more is known about them.

Jain.

Jains number nearly 8,000 in the district, more than half of whom are found in the Wandiwash taluk, and the rest in Arcot and Pólúr. Their existence in this neighbourhood is accounted for by the fact that a Jain dynasty reigned for many years in Conjeeveram. They must at one time have been very numerous, as their temples and sculptures are found in very many places from which they themselves have now disappeared. Some particulars of their religious belief have already been given. They have most of the Bráhman ceremonies and wear the sacred thread, but look down upon Bráhmans as degenerate followers of an originally pure faith. For this reason they object generally to accepting ghee or jaggery, &c., from any but those of their own caste. Their priests are styled Vádyárs, but seem not to do much in the way of instructing the laity, who know but little about the tenets of their religion. They do not admit that they have any sub-divisions among themselves, apparently considering that they are all pure Bráhmans. Like these they are defiled by entering a Pariah village, and have to purify themselves by bathing and assuming a new thread. Theoretically their daughters should be married in childhood, but practically the rule is not observed. The usual caste affix is Nainár, but a few, generally strangers from other districts, are called Rao, Chetti, Dás or Mudaliár. All these may intermarry and associate freely with one another, but no Jain will take food with any other caste man.

SHEPHERDS AND CATTLE-BREEDERS.

Golla.

Gollas are the great pastoral caste of the Telugu people. The traditions of this caste give a descent from the god Krishna, whose sportings with the milk-maids play a prominent part in Hindu mythology. The hereditary occupation of the Gollas is tending sheep and cattle and selling milk, but many of them have now acquired lands and are engaged in farming; and some are in Government service. The Gollas are sub-divided into the Erra, Karna, Púni and Rácha Gollas with probably a few more. They are quiet, inoffensive and comparatively honest. In the time of the nabobs this last characteristic secured to them the privilege of guarding and carrying treasure, and one sub-division, Bokhasa Gollas, owes its origin to this service. Even now those who are

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employed in packing and lifting bags of money in the district treasuries are called *Gollas*, though they belong to other castes. As a fact they do hold a respectable position, and though poor are not looked down upon, for they tend the sacred cow. Sometimes they assert a claim to be regarded as representatives of the Gó-Vaisya division. Their title is Mandádi, but it is not commonly used.

Idaiyan.

Idaiyans or **Yádavas** are the pastoral class of the Tamil districts. Their name is derived from Tamil *idai*, which means middle, and is said to refer to their occupation of the middle, called *mullai* (pasture land), of the five groups of land mentioned in Tamil works. The Idaiyans are sub-divided into eighteen sections, of which the most important are Sámbán and Siviyár. They are particularly ignorant, and have no tradition about themselves except that Krishna was brought up among them, and he is therefore their favourite deity. The educated Idaiyans are generally addressed as Pillai.

Kurumba.

The **Kurumbas** or Kurubas are an interesting tribe of shepherds found chiefly in the plateau portion of the district, but also in Chittoor and Gudiyáttam, and in very small numbers in the southern taluks. They are the modern representatives of the ancient Pallavas, who were once so powerful in Southern India. In the seventh century the power of the Pallava kings seems to have been at its zenith, though very little trace of their greatness now remains; but soon after this the Kongu, Chóla and Chálukya chiefs succeeded in winning several victories over them, and the final overthrow of the Kurumba sovereignty was effected by the Chóla king Ádondai about the eighth century A.D., and the Kurumbas were scattered far and wide. Many fled to the hills, and in the Nilgiris and Wynaad, in Coorg and Mysore, representatives of this ancient race are now found as wild and uncivilized tribes.[7]

It has been suggested that the name is a derivative of the Canarese root *kuru*, sheep (cf. Tam. *kori*); but it has been objected to this that the Kurumbas were not originally a purely shepherd tribe and it is contended that the particular kind of sheep called *kori* is so called because it is the sheep of the Kurumbas. Again the ancient lexicographer of the Tamil language, Pingala Muni, defines *Kurumban* as ' Kurunila-mannar ', or petty chieftains. But the most common derivation is from Tamil *kurumbu*, wickedness,

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[7] There is much doubt as to the date of the downfall of the Pallava kingdom, but it must have taken place at some time between the seventh and ninth centuries.

so that Kurumban means a wicked man. With this may be compared the derivation of Kallan from *kalavu*, theft, and the Kallans are now generally believed to have been closely connected if not identical with the original Kurumbas. On the other hand the true derivation may be in the other direction, as in the case of the Sclavs. According to tradition the Kurumbas are the descendants of a Kápu man by a concubine of the same caste, but there does not seem to be the slightest connection between the two castes. The language of the Kurumbas is a dialect of Canarese and not of Tamil, as stated by Dr. Caldwell. It resembles the old Canarese.

The Kurumbas are divided into three endogamous divisions, viz., (1) Attikankana, (2) Unnekankana, (3) Andé. In Canarese *atti* means 'cotton,' unne 'woollen,' while *kankana* is a thread tied round the wrist at the time of marriage and the first and second sub-divisions use respectively cotton and woollen threads at their marriages. 'Andé' is a small vessel used by the Andé Kurubas for milking goats. The Andés are Lingáyats and use the cotton and woollen threads mixed. All these divisions weave black cumblies (blankets), but one sub-section called Sunnata or Vasa (new) Kurumbas make only white blankets.

They are still further divided into clans or '*gumpus*,' each having a headman or *guru* called a *gaudu*, who gives his name to the clan. And the clans are again sub-divided into *gótras* or septs, which are mostly of totemistic origin, and retain their totemistic character to this day. The sub-divisions of some other castes are possibly of totemistic origin, but this is the only Madras caste in which the system of totems is still a living system. The existence of this curious survival was elicited by the personal inquiries of the editor of this edition and the information here given may be accepted as trustworthy. There are nearly fifty of these septs and the names of them are given below. Each sept bears the name of an animal, a tree, a plant or of some material object, which the members of that sept are prohibited from killing, eating, cutting, &c. The Arisana gótram is particularly worthy of notice. The name means 'saffron' and this was originally *taboo*, but as this caused inconvenience the *korra* grain has been substituted for saffron, although the old name of the sept was retained. Members of the same sept or *gótram* cannot intermarry, but intermarriage is allowed between members of different septs, provided they belong to the same main sub-division :

CHAP. IV.
SHEPHERDS AND CATTLE-BREEDERS.

Kurumba.

Name of Sept.	Totem.	Name of Sept.	Totem.
Alige ...	A kind of drum.	Ibábire ...	Tortoise.
Âlu ...	Milk.	Irula ...	Night.
Andara ...	Pandál (booth).	Iruvu ...	Black ant.
Âne ...	Elephant.	Jelakuppa ..	Fish.
Ari ...	Ebony.	Jírige ...	Cumin.
Arisana ...	Saffron.	Jivala ...	A small insect.
Âvu ...	Snake.	Kalle ...	Bengal gram.
Bandi ...	Cart.	Kanchu ...	Bell-metal.
Bela ...	Babul tree.	Kavada ...	Coloured border of a cloth.
Belata ...	Wood-apple.		
Belli ...	Silver.	Malli ...	Jasmine.
Benise ...	Flint stone.	Menusu ...	Pepper.
Bévu ...	An instrument for cleaning wool.	Minchu ...	A metal ring for the toe.
Bínu ...	A roll of woollen thread.	Míse ...	Moustache.
		Náli ...	Bamboo tube.
Bóla ...	Bangle.	Náyi ...	Dog.
Chélu ...	Scorpion.	Ôthu ...	Goat.
Chilla ...	A kind of tree (*Strychnos potatorium*).	Putta ...	Ant-hill, snake-hole.
		Sámanti ...	A flower (*Chrysanthemum indicus*).
Déva ...	Pine tree (*Seltica Indica*).		
		Sankhu ...	Shell.
Emme ...	Buffalo.	Sinnata ...	Gold.
Gáli ...	Devil.	Turaka ...	Musalman.
Gauda ...	Headman.	Ungara ...	Ring.
Gulimi ...	Pickaxe.	Uppiri ...	Earth-salt.

Each community of Kurumbas residing in a group of villages has a headman or *gaudu*. He acts the part of a priest or pújári in all their ceremonies, as no Bráhmans are invited for the occasion. He presides over their tribal meetings and settles the disputes. He is paid 4 annas or, as they call it, one 'rúka,' per house per annum. He is a strict vegetarian and will not eat with other Kurumbas.

The religion of the Kurumbas is a species of ancestor worship. None of the gods of the Hindu pantheon are venerated by them, though these are now beginning to attract their attention. Besides the totems which the respective septs worship, each clan has a separate household deity, apparently the common ancestor. The names Battiappa, Irsikappa, Bírappa and Olagara Siddhappa suggest this, and the people admit that they were not supernatural beings, but only heroes. The Gaudu is entrusted with the custody of a golden image representing the hero of the clan, and keeps it carefully in a small box filled with turmeric powder. There are also stone images set up in temples built for the purpose. Once a year several neighbouring clans assemble at one of their bigger temples, which is lighted with ghee, and placing their images in a row, offer to them flowers, cocoanuts, milk, &c., but do not slay any victim. On the last day of their festival the Kurumbas

take a bath and worship a bull and break cocoanuts upon the heads of pújáris who have an hereditary right to the distinction, and upon the head of the sacred bull. Some Kurumbas do not adopt this apparently inhuman practice. A pújári or priest supposed to have some supernatural power officiates and begins by breaking a few nuts on the heads of those nearest to him, and then the rest go on, the fragments belonging by right to those whose skulls have cracked them, and who value the pieces as sacred morsels of food. For a month before this ceremony all the people have taken no meat, and for three days the pújáris have lived on fruits and milk alone. At the feast therefore all indulge in rather immoderate eating, but drink no liquor, calling excitedly upon their particular god to grant them a prosperous year.

The temples of this caste are usually rather extensive, but rude, low structures, resembling an enclosed mantapam supported upon rough stone pillars, with a small inner shrine, where the idols are placed during festival time. A wall of stones encloses a considerable space round the temple, and this is covered with small structures formed of four flat stones, three being the walls and the fourth the roof. The stone facing the open side often has a figure sculptured upon it, representing the deceased gaudu or pújári to whom it is dedicated. For each deceased person of this rank one of these monuments is constructed, and here periodically, and always during the annual feasts, púja is made not only to the spirits of the deceased chiefs, but also to those of all who have died in the clan. It seems impossible not to connect this with those strange structures called by the natives Pándava's temples. They are numerous where the Kurumbas are now found, and are known to have been raised over the graves of the dead. Though the Kurumbas bury, they do not now raise their monuments over the resting place of the corpse, nor can they build them upon anything approaching to the gigantic scale of the ancient kistvaen or dolmen.

The mother and the child remain in a separate hut for the first ten days after delivery. On the eleventh day all the Kurumba females of the village bring each a pot of hot water and bathe the mother and child. Betel and nuts are distributed and all the people of the village eat in the mother's house. On the next market-day her husband, with some of his male friends, goes to a neighbouring market and consults with a Korava or Yerukala what name is to be given to the child, and the name he mentions is then given to it.

Early marriage is allowed, but it is not compulsory. As a preliminary to the marriage the bridegroom's father observes certain marks or 'curls' on the head of the bride proposed. Some of

CHAP. IV. SHEPHERDS AND CATTLE-BREEDERS. — Kurumba.

these are believed to forbode prosperity and others only misery to the family into which the girl enters. They are, therefore, very cautious in selecting only such girls as possess curls (*suli*) of good fortune. This curious custom obtaining among this primitive tribe is observed by others only in the case of the purchase of cows, bulls and horses. One of the good curls is the *báshingan* found on the forehead; and the bad ones are the *péyanákallu* at the back of the head, and the *edirsuli* near the right temple. But widowers seeking for wives are not generally particular in this respect. The marriage is celebrated in the bride-groom's house, and if the bride belongs to a different village she is escorted to that of the bridegroom and is made to wait in a particular spot outside it, selected for the occasion. On the first day of the marriage *púrna kumbam*, a small decorated vessel containing milk or ghee with a two-anna piece and a cocoanut placed on the betel leaf spread over the mouth of it, is taken by the bridegroom's relations to meet the bride's party. There the distribution of *pánsupári* takes place and both parties return to the village. Meanwhile the marriage booth is erected and twelve twigs of nával (*Calyptranthes caryophillofolia*) are tied to the twelve pillars, the central or the 'milk post', under which the bridal pair sit, being smeared with saffron and a yellow thread being tied thereto. In an auspicious hour of the third day the couple are made to sit in the booth, the bridegroom facing the east and the bride facing west. On a blanket spread near the *kumbam* 2⅓ measures of rice, a *táli* or *boṭṭu*, one cocoanut, betel-leaf and camphor are placed. The Gaudu places a ball of *vibhúti* (sacred ashes) thereon, breaks a cocoanut and worships the *kumbam*, while camphor is also burnt. The Gaudu next takes the *táli*, blesses it and gives it to then bridegroom, who ties it round the bride's neck. The Gaudu then throwing rice on the heads of the pair, recites the following song :—

Girisetti giriráma,
Sarigé dévakka,
Magalu bartálandu,
Kanchi kálangi,
Kudintrigindi,
Punyavanta magaḷe,
Bágyavanta magaḷe,
Basavanna banda,
Teginannu musuku.
Sóbattu sóbana !
Sóbattu sóbana !

The girl now removes her veil and the men and women assembled throw rice on the heads of the bridal pair. The ends of their garments are then tied and two girls and three boys are made to eat out of the plates placed before the married couple. A feast to all their relations completes the ceremony. The Gaudu receives 2⅓ measures of rice, five handfuls of nut and betel-leaf, and 12 saffrons as his fee.

Kurumba.

Even though the girl has attained puberty the nuptial ceremony is not coincident with the wedding but is celebrated a few months later. When a girl attains her maturity she is kept in a separate hut for nine days. On the tenth day the hut is removed outside the village and burnt, while the girl is made to bathe in a tank or well and brought home, but she is not permitted to touch any member of the family for three days more. A feast is also given to all her relations. If a female has committed adultery with any man of the tribe, a regular enquiry is instituted before the *panchâyat* and the woman sent to her father's house, and all the people of the tribe are fed at the expense of the seducer.

As soon as life is extinct the body is washed and taken in a bier to the burial-ground where it is interred. The son or, in his absence, a near relative goes round the grave three times, carrying a pot of water in which he makes a hole at each round. On the third round he throws down the pot and returns home straight away without turning his face towards the direction of the grave. For three days the four carriers of the bier are not admitted into their houses, but they are fed at the cost of the deceased's heir. On the third day cooked rice, a fowl and water are taken to the burial-ground and placed near the grave to be eaten by the spirit of the dead. The son and all his relations return home beating on their mouths. Pollution is observed for ten days and on the eleventh day sheep and fowls are killed and a grand feast is given to the Kurumbas of the village. Before the feast commences a leaf containing food is placed in a corner of the house and worshipped. This is removed on the next morning and placed over the roof to be eaten by crows. If the deceased be a male, the glass bangles worn by his wife on her right arm are broken on the same day.

The rule of inheritance differs very little from that current among other Hindus, but the daughter, if the deceased has no son, shares equally with the agnates. The ordinary titles of the Kurumbas are *Heggade* and *Gauda*. Many, however, have forgotten the names of their idols, and have taken the title Náyakkan while others have no addition to their simple names.

Kannadiyan.

Kannadiyans are immigrants from the province of Mysore. Their traditional occupation is said to have been military service, although they follow, at present, different pursuits in different districts. They are usually cattle-breeders and cultivators in North Arcot, South Arcot and Chingleput, and traders in the southern districts. Most of them are Lingáyats, but a few are Vaishnavites. They employ Bráhmans as priests. Their girls are married either before or after puberty. Divorce is allowed

CHAP. IV. ARTISANS.

only for adultery by the wife. Widows may not remarry. The dead are either burned or buried. They eat mutton, fowls, fish and deer. Their usual agnomen is *Raut*, and in some places they are addressed as Náyakkan.

Kammála and Kamsala.

Kammálas or **Kamsalas,** the artisan caste, allege that they are sprung from Panchamukha Brahma, or Brahma with five faces. This deity had five consorts, from whom were descended the five classes into which the Kammálas are divided, each engaged in a different trade, viz., the blacksmiths, carpenters, braziers, stone-masons and goldsmiths. Their traditions state that they originally came from the north of India, where they possessed the magic power of creation and lived in a strong fort called Kánthakóta. Their power and prosperity eventually excited the jealousy of the reigning power, and they were expelled, seeking refuge in Southern India, all the noble architecture of which was produced by them. Proud of their achievements the Kammálas pretend to a superiority even over the Bráhmans, and have priests from among themselves, who claim an independent access to the Védas. They also assert that they are the originators of grammar, logic, mathematics and theology, and therefore style themselves Áchári, or religious instructors. A few are called Battans. All wear the sacred thread and refuse to eat with others, even with Bráhmans. They imitate the Bráhmans in all their ceremonies. Girls must be married before puberty. Widow marriage is prohibited strictly and the use of flesh and alcohol only nominally. Many of them bury the dead in the sitting posture, but cremation is also practised.

The Bráhmans and Kammálas appear from time immemorial to have been rivals. The former say that Visvakarma, the son of Brahma, from whom they assert that all Kammálas are descended, was condemned to become a Chandála or outcaste, and that his progeny are therefore the lowest of the low. The Kammálas retort that Visva Sátha Brahma, the progenitor of the priestly class, was also cursed and turned into a Chandála and that therefore they are not only as good as Bráhmans, but a good deal better, since they still act the part of the deity in ministering to the wants of all mankind. The Bráhmans depend upon them for their temples and idols, the Kshatriyas for their weapons of war, the Vaisyas for their balances and other implements of trade, and the Súdras for their instruments of husbandry; in fact none are independent of their aid. The wordy warfare of this kind often waxes hot and fierce, but by most the artisans are placed far lower in the social scale than the Bráhmans.

WEAVING CASTES. Dévánga.

Dévángas are a caste of Telugu weavers, the name being derived from *Déva-angam* or the limb of God. The patron deity

of the caste is Chaudanáyaki, who is regarded as the personification of the power of Siva. The Dévángas are divided into two linguistic sections called the Telugu Dévángas and the Canarese Dévángas. The latter are called JÁNDRAS which means 'the great men.' They have priests of their own, but some employ Bráhmans also. The marriage of girls generally takes place after puberty. The remarriage of widows is permitted. Divorce may be obtained by the husband for unchaste conduct on the part of his wife, by an appeal to a caste pancháyat. The dead are usually buried in the sitting posture, and a hut of milk-hedge branches is erected over the grave. The people are flesh-eaters, and liquor is only nominally forbidden. Their usual title is Chetti.

Dévánga.

Jándras are, as stated above, the Canarese section of the Dévángas, and they are often called by that name. The Jándras principally worship a female deity called Chaudésvari, who is regarded as the personification of the power of Siva, and as superior in power to all other gods, including the Hindu triad. The caste is most numerous in the Mádarpák division. They are not particular as regards eating in the houses of any respectable Súdra caste.

Jándra.

Janappan is the name of a caste which engages in trade by hawking goods about the towns and villages of the district. Originally they were merely manufacturers of gunny bags out of hemp (janapa) and so obtained their name, but now they are met with as Dásaris or religious beggars, sweetmeat-sellers and hawkers of English cloths and other goods. By the time they have attained to the last honorable profession, they assume to be Balijas. Telugu is their vernacular and Chetti their usual caste name. According to their own tradition they sprung from a yágam made by Bramha, and their remote ancestor thus produced was, they say, asked by the merchants of the country to invent some means for carrying about their wares. He obtained some seeds from the ashes of Brahma's yágam, which he sowed, and the plant which sprung was the country hemp which he manufactured into a gunny bag. The Janapa Chettis are enterprising men in their way, and are much employed at the fairs of Gudiyáttam and other places as cattle-brokers.

Janappan.

Kaikólans form the principal weaving class in the district, producing large quantities of the male and female cotton cloths ordinarily worn by the people. The word Kaikólan is simply the Tamil equivalent of the Sanskrit *Virabáhu*, a mythological hero from whom both the Kaikólas and a section of the Paraiyans claim descent. They are also called Sengundar (*sengundam*, red dagger) in consequence of the circumstances narrated in the following

Kaikólan.

CHAP. IV. WEAVING CASTES. Kaikólan.

legend. The people of the earth being harassed by certain demons, applied to Siva for help. Siva was enraged against the giant and sent forth six sparks of fire from his eyes. His wife Párvati was frightened and retired to her chamber, and in so doing dropped nine beads from her anklets. Siva converted the beads into as many females, to each of whom was born a hero with full-grown moustaches and a dagger, and these nine heroes with Subramanya at their head, marched in command of a large force and destroyed the demons. The Kaikólans or Sengundas are said to be the descendants of Vírabáhu, one of these heroes.

The Kaikólans say that they were first brought into Tondamandalam by Ádondai, who placed them in charge of the various temples that he built in the country. Until quite recently it was the custom that the eldest daughter of a family should be presented to some temple as a dancing girl or 'dási,' but this is now rare, since fear of prosecution under the Penal Code restrains them. It is said that where the head of a house dies leaving only female issue, one of the girls is made a dási in order to allow of her working like a man at the loom, for no woman not dedicated in this manner may do so.

The Kaikólans worship Siva, and some are Lingáyats. Tamil is their vernacular, and Bráhmans are their priests. Lingáyats bury and the others burn their dead. Widows are allowed to remarry if they have no issue, but not otherwise, and if the popular idea that a Kaikóla woman is never barren be true, this must seldom take place. Flesh-eating is only nominally prohibited, and in their customs generally they are very free and easy. They may eat in the houses of Bráhmans and Kómatis, but not in those of any other castes. They acknowledge the authority of a headman or Mahánáttán, who resides in Conjeeveram but itinerates among their villages, receiving presents and settling caste disputes. Where his decision is not accepted without demur, he imposes upon the refractory weavers the expense of a curious ceremony, in which the planting of a bamboo post forms part. From the top of this Mahánáttán pronounces his decision, which must now be acquiesced in on pain of excommunication. The usual title of Kaikólans is Mudali.

Patnúlkár.

Patnúlkárs are a foreign race of weavers, hailing from Surat and speaking Guzeráti, often called here the Patnúl language. They say that they were originally Bráhmans, living in a town of Surat called Dévagiri, in which twelve streets were entirely peopled by them. For some reason, of which they profess themselves to be ignorant, the residents of one of these streets were excommunicated by the rest of the caste and expelled. They

Patnúlkár.

travelled southwards and settled in Tirupati, Arni, and Vellore, as well as in Trichinopoly, Tanjore, Madura, and other large towns, where they carried on their trade of silk-weaving (pat-núl = silk thread), whence their name. Another story is to the effect that they were bound to produce a certain number of silken cloths at each Dípávali feast in Dévagiri for the goddess Lakshmi. One year their supply fell short, and they were cursed by the goddess, who decreed that they should no longer be regarded as Bráhmans. They however still claim to be such, and follow the customs of that caste, though they refuse to eat with them. They acknowledge priests from among themselves, as well as from among Bráhmans, and profess to look down upon all other castes. In religion they are divided into Smártas, Vaishnavas, and Vyápáris, some among the Smártas being Lingáyats. In appearance they are lighter complexioned than the southern castes, and are usually in well-to-do circumstances, though ordinarily illiterate. Those who can write usually employ the Telugu characters in writing their language.

Rangári.

Rangári is a caste of dyers, chiefly found in Wálájápet. They claim to be Kshatriyas, who accompanied Ráma in his conquest of Ceylon, from which fact one of their names, Langáris (lanka, the island, *i.e.*, Ceylon), is said to be derived. Ráma for some reason or other became incensed against and persecuted them. Most were destroyed, but a respectable Kshatriya lady saved her two sons by taking off their sacred threads and causing one to pretend that he was a tailor sewing, and the other that he was a dyer, colouring his thread with the red betel-nut and leaf, which she hurriedly supplied out of her mouth. The boys became the progenitors of the caste, the members of which now wear the thread. The descendants of the one brother are tailors and of the other, the most numerous, dyers. Their chief feasts are the Dassara and Káman, the former celebrated in honour of the goddess Tulasi and the latter of Manmada, the Indian Cupid, fabled to have been destroyed by the flame of Siva's third eye. During the Káman feast fires of combustible materials are lighted, round which the votaries gather, and, beating their mouths, exclaim 'laba, laba,' lamenting the death of Cupid. In this feast Rájputs, Mahráttas, Bondilis, and Guzerátis also join. The Rangáris speak Maráthi, which they write in the northern character, and name Poona and Shólapore as the places in which they originally resided. In appearance they do not at all resemble the other claimants to Kshatriya descent, the Rázus and Rájputs, for they are poorly developed and by no means handsome. Widow remarriage is permitted where children have not been born, but

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remarried widows are prohibited from taking part in religious ceremonies, which seems a sign that the concession has been reluctantly permitted. In most of their customs they differ but little from the Rázus, eating meat and drinking spirits, but not keeping their women gosha.

Sále.

Sále is a Telugu caste of weavers attached to the worship of Vishnu. They wear the sacred thread, but appear to possess no tradition, fabulous or otherwise, regarding their origin. They do not allow the remarriage of widows, but permit flesh-eating and are not particular in whose house they take their meals. They are divided into Páka Sáles and Padma Sáles, the members of which never intermarry.

Séniyan.

Séniyan is another Telugu weaving caste, which however worships Siva, usually under the Lingáyat form of worship. The Lingáyats resemble the Linga Balijas in their customs in all respects, except that they recognize sútakam, or pollution, and bathe to remove it. They have no sub-divisions among themselves, and freely eat in the houses of all Linga Balijas, but the latter will not eat with them. They entirely disregard the spiritual authority of the Bráhmans, recognizing priests among the Linga Balijas, Jangams, or Pandárams. In the exercise of their trade they are distinguished from the Kaikólans in that they sometimes weave in silk, which the Kaikólans never do.

Togata.

Togatas are also Telugu weavers and are more numerous in Cuddapah than in North Arcot. They manufacture the coarsest kinds of cloths, such as are worn only by the poorer classes. They are generally Vaishnavites and wear the sacred thread. Their widows are allowed to remarry. They bury the dead.

Dúdékula.

Dúdékulas are Muhammadans who have taken to the trade of cotton-cleaning, as their name implies (*dúde* = cotton, and *ékuta* = to clean). By the Tamils they are called Panjáris, which has the same significance. Though Muhammadans, they have adopted or retained many of the customs of the Hindus around them, tying a táli to the bride at marriage, being very ignorant of the Muhammadan religion, and even joining in Hindu worship as far as allowable. Circumcision is, however, invariable and they are much given to the worship of Muhammadan saints. In dress they resemble the Hindus, and often shave off the beard, but do not leave a single lock of hair upon the head as most Hindus do. They were originally Sheiks, but, though their names are Muhammadan, they drop the name of Sheik for males and Bí for females. In large towns their manners approach more closely to those of the Muhammadans.

OIL-PRESSERS

Gándla.

Gándlas are the ordinary Telugu caste of oil-pressers. The name is derived from the Telugu *gániga*, an oil-mill. The Gándlas are of two kinds, *Onteddu* and *Renteddu;* the latter are also called Vániyans. The former do not wear the sacred thread, while the latter do. In fact the caste closely resembles the Vániyans except that they speak Telugu instead of Tamil and use but one bullock to work the mill, while the Vániyans use two. They employ Linga Balijas as their priests. Their *insigne* of marriage is a bundle of 101 yellow-colored threads, without a *táli* or *boṭṭu.* Their girls are married either before or after puberty. The dead are generally burned, but the poor bury. Onteddu Gándlas are also called Déva Gándlas, and belong to the right-hand faction, while the Rendeddu Gándlas or Vániyans belong to the left.

Vániyan.

Vániyans are the other chief caste of oil-pressers. The word *vánijyam* signifies trade, and trade in oil, as well as its manufacture, is the usual employment of this caste, who assert that they are Vaisyas and claim the Vaisyapuránam as their holy book. They are said to have assumed the thread only within the last fifty or sixty years, and are reputed to be the result of a yágam performed by a saint called Vakkuna Mahárishi. The caste contains four sub-divisions called Kámákshiamma, Visálákshiamma, Ac'chu-táli, and Toppa-táli, the two first referring to the goddesses principally worshipped by each, and the two last to the peculiar kinds of tális, or marriage tokens, worn by their women. They have the same customs as the Béri Chettis, but are not particular in observing the rule which forbids the eating of flesh.

A bastard branch of the Vániyas is called the Pillai kúttam, which is said to have sprung from the concubine of a Vániyan who lived many years ago. The members of this class are never found except where Vániyans live, and are supposed to have a right to be fed and clothed by them. Should this be refused, they utter the most terrible curses, and in this manner eventually intimidate the uncharitable into giving them alms.

POTTERS.

Kummara or Kusavan.

Kummaras or **Kusavans** are the potters of the country, and were probably at one time a single caste, but are now divided into Telugus, Northern Tamilians and Southern Tamilians, who have similar customs, but will not intermarry or eat together. Their names are derived from the Sanskrit 'ku,' signifying earth, the material in which they work. The northern and southern potters differ in that, the former use a wheel of earthenware, and the latter one made of wood. The Telugu potters are usually followers of Vishnu and the Tamilians of Siva, some being also Lingáyats and therefore burying their dead.

CHAP. IV. POTTERS. Kummara or Kusavan.

All the potters claim an impure Brahmanical descent, telling the following story regarding their origin. A learned Bráhman, after long study, discovered the day and hour in which he might beget a mighty offspring. For this auspicious time he waited long, and at its approach started for the house of his selected bride, but floods detained him, and when he should have been with her he was stopping in a potter's house. He was, however, resolved not to lose the opportunity, and by the daughter of his host he had a son, the celebrated Sáliváhana. This hero in his infancy developed a genius for pottery, and used to amuse himself by making earthen figures of mounted warriors, which he stored in large numbers in a particular place. After a time Vikramárka invaded Southern India and ordered the people to supply him with pots for his army. They applied to Sáliváhana, who miraculously infused life into his clay figures and led them to battle against the enemy, whom he defeated, and the country (Mysore) fell into his hands. Eventually he was left as its ruler, and became the ancestor of the early Mysore rájás. Such is the story current among the potters, who generally believe that they are his progeny. They all live in a state of poverty and ignorance and are considered of a low rank among other Súdras, whom they resemble in their customs. Flesh-eating, though said to have been originally prohibited, is now permitted, but not widow remarriage.

FISHERMEN. Bésta.

Bésta is a Telugu caste, the proper occupation of which is hunting and fishing, but they have largely taken to agriculture and the profession of bearers and cooks; as the last they are very skilful, being usually employed by poligars and rich Súdras. Many also trade, and all are in a flourishing condition, being most numerous above the gháts. The name appears to have no meaning, but they call themselves 'Sútakulam,' and say they are the descendants of the rishi Súta Mahámuni. The term Súta also applies to the offspring of a Kshatriya by a Bráhman, but it seems more probable that the Béstas gained the name from their superiority in the culinary art, 'Súta' also meaning 'cook.' In their customs they resemble other Súdras who eat flesh. They are divided into Telugu Béstas and Parikiti Béstas, the difference between them being chiefly one of religious observance, the former being in the habit of getting themselves branded on the shoulders with the Vaishnavite emblems chank and chakram, and the latter never undergoing this ceremony. It is a rule with them to employ Dásaris as the messengers of a death, and Tsákalas as those of a birth, or of the fact that a girl has reached womanhood. Their chief object of worship is Hanumán, 'the monkey god,' a picture or figure of whom they always have in their houses for domestic worship.

CHAP. IV. FISHERMEN.

Bóya.

Bóya is another Telugu hunting caste, chiefly found above the gháts. Many of the poligars of that part of the country used to belong to the caste, and proved themselves so lawless and turbulent that they were dispossessed. Now they are usually cultivators. They have several divisions, the chief of which are the Mulki Bóyas and the Pála Bóyas, who cannot intermarry. Their most peculiar custom relates to marriages, in which the bride, besides having a golden táli tied to her neck, has an iron ring fastened to her wrist with black string, and the bridegroom has the same. Widows may not remarry or wear black bangles, but they wear silver ones. They bury their dead and use Mádigas as their messengers on such occasions. The Tirupati swámi and the goddess Gangamma are the chief objects of their devotion.

Paḻḻi.

Paḻḻis are a fishing caste of the Telugu districts. It seems probable that they are a branch of the great Paḻḻi or Vanniya tribe, for Buchanan refers to the Mína Paḻḻis and Vana Paḻḻis. The caste is not very numerous in North Arcot, and many of those who appear as Paḻḻis in the census returns are probably the ordinary Paḻḻis or Vanniyans.

Sembadavan.

Sembadavans are the Tamil representatives of the above fishing tribes. The name is by some said to be derived from 'Sivan-padavar' (Siva's boatmen), but by others, and more probably, from 'sempadavar' (good boatmen). They are only found in the Tamil portion of the district, where they do not hunt, but act as boatmen and fishers. They have little opportunity of exercising the former profession, but during heavy freshes in the big rivers they ferry people from bank to bank in round leather-covered basket coracles, which they push along, swimming or wading by the side, or assist the timid to ford by holding their hands. At such times they make considerable hauls. During the rest of the year they subsist by fishing in the tanks. They are Saivites and some worship the lingam, but all chiefly reverence a goddess called Ankálamman, whom they describe as a Sembadava girl, of whom Siva became enamoured. To this *sakti* they occasionally offer animal sacrifices, and many of the inferior Súdra castes gathering up the ashes of the sacrificial fires use them for making Siva marks upon their bodies. According to their own account Siva was much pleased with their ancestors' devotion to him when they lived upon the seashore by catching a few fish with difficulty, and in recognition of their piety furnished them with a net and directed various other castes to become fish-eaters, so that the Sembadavar might live comfortably. They are never in well-to-do circumstances,

CHAP. IV. FISHERMEN.

but rarely in want, as their profession supplies them pretty regularly with food, and there is a large demand for fish among the people.

Védan.

Védans were formerly hunters and soldiers, and it is this caste which furnished a considerable and valuable contingent to the early Hindu kings and latterly to the armies of Hyder and Tippoo. They are supposed by some to be the remnants of the earliest inhabitants of the peninsula and identical with the Veddahs of Ceylon. They are also called Válmíkulu, which means 'those who live on the products of ant-hill (*valmíkam*).'

Mála.

Málas are the Paraiyans of the Telugu country. Dr. Oppert derives the word from a Dravidian root meaning a mountain which is represented by the Tamil *malai*, Telugu *mala*, &c. The most important sub-divisions among the Málas of North Arcot are the Arava, Bóya, Murikináti, Morasa, Reddi-bhúmi, Pákanáti, Pókanáti, and Tangalán Málas. Of these the Reddi-bhúmi is the highest and corresponds to the Tangalán Paraiyans. The Bóyala Málas are the next and eat cattle that die from disease, as do the Pákanáti Málas. The Murikináti Málas are the lowest, performing scavengers' work and corresponding to the Vellám Paraiyans among the Tamilians. Arava Málas are, of course, Paraiyans and so probably are the Tangaláns.

The Málas, like the Paraiyans, are said to have been weavers at one time, but very few are engaged in this occupation at the present day. Most of them are now labourers. Like the Telugu people generally, the majority of the Málas are nominally Vaishnavites, but they are not allowed inside Vishnu temples and their real allegiance is given to the demons and village deities. They have priests of their own, called Mála Dásaris. There is no rule prescribing early marriage, but the statistics show that marriage before puberty is common. Divorce is free, but if a man sends his wife away for no serious fault on her part, he must make a money payment to her, and if she is the one who makes the divorce, then whatever the cause, her next husband must pay a fine which goes not to the previous husband but to the caste. The remarriage of widows is permitted, but the second marriage is attended with much less formality than the first. They have no titles.

LABOURERS. Paraiyan.

Paraiyans or **Pariahs** are the agricultural labourers of the Tamil districts. The word Paraiyan is ordinarily derived from the Tamil *parai* which means a drum; but Dr. Oppert asserts that it is etymologically connected with *pahariya* or *parvatiya*, a hill man. Whatever the derivation of 'Paraiyan' the tribe must at one time have held an influential position, for there are curious survivals of this in certain privileges which the Paraiyans have

retained to the present day. They are said to have eighteen sub-divisions, but the Tangalán Paraiyans are the only sub-division which is found in large numbers in the North Arcot district. Many of them are employed as domestic servants of Europeans and East Indians, and as grooms. The Konga Paraiyans and the Vellám Paraiyans, who do scavengering work, will eat cows that have died a natural death, while Tangaláns only eat such as have been slaughtered. The Tangaláns profess to have once been a very respectable class, and wear the sacred thread at weddings and funerals, while the other divisions never assume it. The Tangaláns are sometimes called Máriyas.[8]

Among the lower class of Vellám Paraiyans, who are the village *tótis*, the following legend is current, accounting for the perquisites which they get for performing the menial work of the village. When Ádi Sésha was supporting the earth, he became weary and prayed to Siva for assistance. Siva ordered a Paraiyan to beat upon his drum and cry 'let the ripe decay.' The Paraiyan enquired what should be his reward, and was granted the following privileges, viz., *maṇkúli* (reward for burning corpses), *sáṇ tuṇi* (a span cloth), *váykkarisi* (the rice in the corpse's mouth), *piṇḍa sóṛu* (morsel of boiled rice), and *súṭṭu kúli* (fee for bringing firewood).

This seemed to the Pariah very little, and so to increase the death-rate and consequently his perquisites, he cried 'let the ripe and the unripe decay.' The swámi remonstrated with him, for the result of his cry was that children and the middle-aged among men died. The man pleaded poverty, and was given four additional privileges, viz., a merkal to measure grain, a rod to measure the ground, a scythe to cut grass, and the privilege of carrying the karagam-pot when annually running over the village boundary. All the above privileges still belong to the village Vettis, who receive fees for performing the duties referred to in the legend.

The Paraiyans have been but little affected by Brahmanical doctrines and customs, though in respect to ceremonies they have not escaped their influence. Paraiyans are nominally Saivites, but in reality they worship the female deities called Máriátta, Káḷi, Ponniammál and Mandaiammál, in whose little temples they offer rice, flowers, turmeric, and on important occasions a fowl or goat. The marriage of girls before puberty is very rare. Divorce is easy; a husband can send away his wife at will, and she on her part can dissolve the marriage tie by simply returning the *táli*. Widow marriage is freely allowed. The dead are usually buried. The occupation of the vast majority is agricultural or general

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[8] Cf. the Mári Holeyas of South Canara.

CHAP. IV. LABOURERS.

labour, but, like the Dombos and Pános of the Ganjám and Vizagapatam hills, they seem to have been originally weavers, one of the sub-divisions being the Kóliya or weaving Paraiyans.

Vanniyan or Paḷḷi.

Vanniyans or **Paḷḷis.**—These are a Tamil cultivating class, which is very numerous in the southern taluks, but regarded generally as of inferior status. The name is derived from the Sanskrit *Vanhi* 'fire,' in consequence of the following legend. In the olden time two giants named Vátápi and Máhi worshipped Brahma with such devotion that they obtained from him immunity from death from every cause save fire, which element they had carelessly omitted to include in their enumeration. Protected thus they harried the country, and Vátápi went the length of swallowing Váyu, the god of the winds, while Máhi devoured the sun. The earth was therefore enveloped in perpetual darkness and stillness, a condition of affairs which struck terror into the minds of the dévatas and led them to appeal to Brahma. He, recollecting the omission made by the giants, directed his suppliants to desire the rishi Jámbava Mahámuni to perform a yágam or sacrifice by fire. The order having been obeyed, armed horsemen sprung from the flames, who undertook twelve expeditions against Vátápi [9] and Máhi, whom they first destroyed and afterwards released Váyu and the sun from their bodies. Their leader then assumed the government of the country under the name of Rudra Vanniya Maharájá, who had five sons, the ancestors of the Vanniya caste. These facts are said to be recorded in the Vaiddíswara temple in the Tanjore district. The Vanniyas have, apparently recently, raised a claim to be considered Kshatriyas, which is ridiculed by all other castes. They, however, quote several common stanzas in which acknowledged Kshatriya kings are called Vanniya, Paḷḷi, or Náyakar, and point to their sacred thread and the mantrams which they have always repeated morning and evening. Other castes declare that they are a link between Súdras and outcastes, and that an unscrupulous Bráhman, after investing one of them with the cord, taught him the morning and evening mantram. Their pretensions certainly seem modern, and the manners of most are rude. They allow widow remarriage, make divorce extremely easy, and eat flesh without scruple. In the marriage ceremony exists the peculiarity that the first of the posts supporting the booth must be cut from the Vanni, a tree which they much reverence because they say the Pándavas, who were like themselves Kshatriyas, during the last years of their wanderings, deposited their arms in a tree of this species. This wood was used to produce fire for performing

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[9] The above tradition alludes to the destruction of the city of Vátápi by Narasimha Varma, king of the Paḷḷis or Pallavas.

Vanniyan or Paḷḷi.

yágams, and it is not improbable that there is a connection between its name and that of the caste. The ordinary caste name is Kavandan or Gounden, though a few call themselves Mudali or Náyakar. *Paḷḷi* is the name usually applied to those of the caste who are in the lower ranks of life. The caste has many sub-divisions, such as Agni, Kavandan, Kúdaikatti, Padaiyác'chi, Paḷḷi and Rudra, &c.

WASHERMEN.

Tsákala.

Tsákalas are washermen of the Telugu country. The ordinary Tsákalas are called *Bána* Tsákala in contradistinction to the *Gúna* or Velama Tsákala, who are dyers; a reference has already been made to them in the notice of Velamas with whom they seem to have some connection. The customs of the Tsákalas are much the same as those of the Kápus. *Naidu* is occasionally used as a title by the members of the Tsákala caste, but the majority have no title.

Vannán.

Vannáns are the Tamil washermen, the word being derived from *Vannam*, beauty. With regard to their origin, there is a tradition that they are the descendants of the mythological hero *Vírabadra*, who was ordered by Siva to wash the clothes of all men as an expiation of the sin of putting many people to death in the Daksha's yága. Hence the Tamil washermen are frequently called 'Vírabadran.' Possibly they may once have been identical with the barbers, but now they are themselves divided into Telugus and Tamilians, who do not intermarry. Having to purify all the filthy linen of the villagers, they are naturally regarded as a low, unclean class of Súdras, and are always poor. They add to their income legitimately by hiring out the cloths of their customers to funeral parties, who lay them on the ground before the pall-bearers, so that these may not step upon the ground, and illegitimately by letting them out on the sly to persons wishing to use them without having to purchase for themselves.

BARBERS.

Mangala and Ambaṭṭan.

Mangalas and **Ambaṭṭans** are the barber castes, and are probably of identical origin, but, like the potters, they have by difference of locality separated into Telugus and Tamilians, who do not intermarry. They number 22,000, or 1·2 per cent. of the population. Both are said to be the offspring of a Bráhman by a Vaisya woman. The Telugu name is referred to the word 'mangalam,' which means 'happiness' and also 'cleansing,' and is applied to barbers, because they take part in marriage ceremonies and add to the happiness of the occasion by the melodious sounds of their flutes (nágasaram), while they also contribute to the cleanliness of the people by shaving their bodies. The Tamil name is supposed to be derived from 'ambu' (near) and 'tishtati' (to be), because barbers bend over those whom they operate upon. They are sometimes called 'Návidan,' or those

CHAP. IV. BARBERS. Mangala and Ambattan.

who should not be touched, and are always considered so low and unclean that all classes, after making use of their services, have to bathe. The Telugus are divided into the Reddibhúmi, Murikinádu, and Kurichinádu sub-divisions, and are mostly Vaishnavites. They consider the Tamilians as lower than themselves, because they consent to shave the whole body, while the Telugus only shave the upper portions. The Tamil barbers seem to have no sub-divisions and many worship Siva.

Besides their ordinary occupation, the members of this caste dabble in surgery, and their females practise midwifery in a barbarous fashion, not scrupling also to indulge largely in criminal acts connected with their profession. Flesh-eating is allowed, but not widow marriage.

TODDY-DRAWERS. Ídiga.

Ídiga is one of the toddy-drawing castes of the Telugu country, the name being derived from Telugu *ídchu*, to draw. The Ídigas are supposed to be a branch of the Balija tribe, separated on account of their occupation. They are chiefly Vaishnavites, having Sátánis as their priests. They are divided into two classes, the *Dandu Ídigas* and the *Balija Ídigas*, of whom the former used originally to distil arrack, but now that the manufacture is a monopoly, they usually sell it. The Balija Ídigas extract toddy, the juice of the palm tree. They differ from the Shánáns in some of their professional customs, for, while the Tamilians in climbing tie their knives behind them, the Telugus tie them on the right thigh. Tamilian drawers extract the juice from palmyras and cocoanuts, but rarely from the date, and the Telugus from the palmyras and dates, but never from cocoanuts. The chief object of their worship is Yellamma, the deity which presides over toddy and liquor. On every Sunday the pots containing liquor are decorated with flowers, saffron, &c., and offerings made to them.

Shánán.

Shánáns are the great toddy-drawing caste of the Tamil districts. In social position they are usually placed only a little above the Pallas and the Paraiyans, and are considered to be one of the polluting castes, but of late many of them have put forward a claim to be considered Kshatriyas. They were employed by former rulers as foot-soldiers and body-guards. The word Shánán is ordinarily derived from Tamil *sáṛu*, meaning toddy. The principal sub-division of the Shánáns in this district is the *Sangidum* Shánán. The Shánáns are a hard-working, industrious people, and pauperism is almost unknown among them. They are both Saivites and Vaishnavites, and employ Bráhman priests. Widow marriage is said to be forbidden, but this is very doubtful. Their titles are ***Múppan, Grámani*** and ***Náttán***.

Mádiga.

Mádigas are workers in leather, an occupation of which they had the monopoly until the Muhammadans and Labbais appeared upon the scene. Whether they or the Málas are the lowest is a subject of dispute between the two classes, but by others they are considered as about equally low, and not caste people at all, and are not therefore allowed to ascend the Tirupati hill, enter the portico of a pagoda, or walk in the streets of a Bráhman village. The Mádigas will not take food or water from Pariahs, nor the latter from the former, a prejudice which is taken advantage of in the Kálahasti Rájá's stables to prevent theft of gram by the Pariah horsekeepers, the raw gram being sprinkled with water by Mádigas in the sight of the Pariahs. The name Mádiga is said to be a corrupt form of Mátanga, a descendant of the sage Mátanga Muni, and according to a tradition current in the caste, the Mádigas or Mátangas have fallen to their present abject position owing to the curses of their ancestor Mátanga Muni. There was formerly a Mátanga dynasty in the Canarese country, and the Mádigas are by some believed to be the descendants of people who were once a ruling caste. Their only tradition refers to one *Arundhati*, a Mádiga maiden, whom, they say, the *rishi* Agastya considered fit to be his wife. Proud of this distinction the cobblers often call themselves Arundhati's caste. They are very filthy in their habits, eat almost anything, and drink to excess. The Mádigas affect to worship the Hindu gods, but their favourite deity is Mátangi. A widow may not remarry, but can live in concubinage without any disgrace.

At marriages the bridegroom has to provide thirty-five new pots and a sum of Rs. 5, which is spent in drink consumed by the guests. The ceremony is performed by their own priests, for no Bráhman will approach their haunts. They are the drummers and horn-blowers of their village, their horn being called 'bánkha' and their drum 'tappattai,' but their main occupation is tanning and leather working, and they usually claim the privilege of taking free of payment the hides of all animals dying in the village, and are not always above increasing the death-rate by means of poison.

Chakkiliyan.

Chakkiliyans are the leather-workers of the Tamil districts corresponding to the Mádigas of the Telugu country. The Chakkiliyans appear to be immigrants from the Telugu or Canarese districts, for a very large proportion of them speak Telugu or Canarese though living in the Tamil country. In social position the Chakkiliyans occupy the lowest rank, but there is much dispute on this point between them and the Paraiyans. Nominally they are Saivites, but in reality devil worshippers. The *ávāram* plant

CHAP. IV. LEATHER-WORKERS. Chakkiliyan.

(*Cassia auriculata*) is held in much veneration by them, and the *táli* is tied to a branch of it as a preliminary to marriage. Girls are not usually married before puberty. The bridegroom may be younger than the bride. Their widows may remarry. Divorce can be obtained at the pleasure of either party on payment of Rs. 12–12–0 to the other in the presence of the local head of the caste. Their women are considered to be very beautiful. They indulge very freely in intoxicating liquors, and will eat any flesh including beef, pork, &c. Hence they are called *par excellence* the flesh-eaters (Skt. *shatkuli*).

Jínigar.

Jínigar.—There are a few members of this caste, chiefly in the Chendragiri taluk, whose ordinary occupation it now is to paint pictures. They were however once, it is said, artificers, and the account given of them is as follows. They were originally Rázus from the Northern Circars, who, coming to the Chendragiri Rájá for employment, were set to watch members of the Kammála caste who served the rájá, in order to prevent idleness or fraud. After some time the Kammálas finished an idol's car, and, being inflated with pride, demanded to be allowed to sit in it before the swámi was himself placed there. For their arrogance they were expelled, and the Rázus having by observation learned something of their craft, discharged their duties to the community. Under the nabobs they abandoned this walk in life and took to saddlery, whence came their name, from *jíni*, a saddle, and now they are merely *muchis*.

TUMBLERS AND ACROBATS. Dommara.

Dommaras are a nomad class of acrobats, who in many respects recall the gipsies to mind and raise the suggestion that their name may possibly be connected with the Doms of Northern India. Both men and women are very clever tumblers and tight-rope dancers, exhibiting their feats as they wander about the country. They speak Telugu, Maráthi and Hindustani, but not generally Tamil, and are regarded as Súdras. They are a predatory class, great drunkards, and of most dissolute habits. The women often practise prostitution.

Vagirivélu.

Vagirivélu [10].—This is the name, in their own language, of a class which lives by trapping birds. They have no Telugu name, but are called 'hunters who hide behind a bullock' (yeddu marigé vétagándlu), or in Hindustani Paradhi and Mír shikari. Their language is a mixture of Telugu and Urdu, and they say that they are Kshatriyas of descent similar to that of the Sugális, but unlike the latter they all take the title Singh. They state

[10] The Collector informs me that this caste is not now to be found in the district.—ED.

Vagirivélu.

that many years ago in Rajputana there lived two brothers, the elder of whom was dull and the younger smart. One day they happened to be driving a bullock along a path by the side of a pool of water when they surprised Sita bathing. The younger brother hid behind his bullock, but the elder was too stupid to conceal himself, and so both were observed by the goddess, who was much annoyed and banished them to Southern India. The elder she ordered to live by carrying goods about the country on pack bullocks, and the younger to catch birds by means of two snares, which she obligingly formed from hair plucked from under her arm. Consequently the Vagirivélus never shave that portion of their body. In appearance they do not resemble the Sugális, being much darker, if possible dirtier, and not so well dressed. The women generally hawk about needles, while the men trap birds with the aid of hair snares and a bullock, behind which they crouch and imitate the cries of birds in a most perfect manner. The caste is divided into 'tandas' or gangs named after its head or Mótó. There is only one gang in this district, of whom the head is Lálmán. The head-quarters is in Varadáreddipalli in the Chittoor taluk, but parties go out with bullocks and booths to hunt their range, which includes North Arcot, Tiruppattúr, and Vániyambádi in Salem. When unsuccessful in the profession, they take to begging, and one of the names they give themselves is bhikkári or beggar. Two or three times in the year all the parties assemble at Varadáreddipalli for worship. The objects of this are three saktis called Mahan Káli, Chámundi, and Mahammáyi, represented by small silver figures which Lálmán has, from the poverty of the gang, had to mortgage to a Reddi of the village, who lends them to the gang for the few days of the festival. In their other customs they rather resemble the Sugális, but the services of a Bráhman are necessary for the marriage of an eldest daughter, while the Mótó performs the ceremony for the rest. A dowry of Rs. 19 is due to the bride's mother, but need not be paid at once, though the mother-in-law causes much unpleasantness if she is kept waiting long. For three years, or until a child is born, the bridegroom must live with his mother-in-law, and after that may set up for himself. They are better behaved than the Sugális and probably less immoral in their ways.

MISCELLANEOUS AND MENDICANT CASTES.

Bhatrázu.

Bhatrázus seem originally to have been the bards who sang the praises of the various petty rájás and poligars of the country; but their employment in this way has greatly fallen off and they now live by cultivation and by singing the fabulous traditions current regarding the different Súdra castes at their marriages

CHAP. IV. MISCELLANEOUS AND MENDICANT CASTES.

Bhatrázu.

and other ceremonies, having probably invented most of them. They profess to be Kshatriyas being supposed to be the offspring of a Kshatriya female by a Vaisya male, and wear the sacred thread, but it is known that several are Musalmans or members of other castes, who, possessing an aptitude for extempore versification, were taken by rájás to sing their praises and so called themselves Bhatturázus. They resemble the Rázus in their customs, but are said to bury their dead. They are most numerous in the Chittoor taluk.

Dásari or Tádan.

Dásari or **Tádan** is a mendicant caste of Vaishnavas, the reputed descendants of a wealthy Súdra of one of the northern districts, who, being devoid of offspring, vowed that should he be blessed with children, he would devote one to the service of his god. He subsequently had many sons, one of whom he named Dásan (most obedient servant), and placed entirely at the service of the deity. Dásan forfeited all claim to participate in his father's estate, and his offspring are therefore all beggars. The caste, like that of the Sátánis, is re-inforced by idle members of the lower Súdra classes, who, being branded by the gurus of Tirupati and other shrines, become Dásaris thereby. They usually wander about, singing hymns to a monotonous accompaniment upon a leather instrument called 'tappai' (tabret). Some Súdra castes engage them thus to chant in front of the corpse at funerals, and many, accompanying bands of pilgrims travelling to Tirupati, stimulate their religious excitement by singing sacred songs. A few called Yerudándis take possession of young bulls that have been devoted to a swámi and teach them to perform tricks very cleverly. The bulls appear to understand what is said to them, and go through various antics at the word of command. Some Dásaris exhibit what is called the 'Panda Sérvai' performance, which consists in affecting to be possessed by the spirit of a deity, and beating themselves all over the body with a flaming torch, after covering it probably with some protecting substance. In such modes do they wander about and receive alms, each wearing as a distinction a garland of tulasi seeds. Every Dásari is a Tengalai. They have six divisions, called Balija, Janapa, Palli, Valluva, Gangeddula, and Golla Dásaris, which neither eat together nor intermarry. As these are the names of existing and distinct castes, it is probable that the Dásaris were formerly members of those classes who, through their vagabond tastes, have taken to a mendicant life. Beyond prohibiting widow remarriage, they have no social restrictions.

Jhógi.

Jhógis are, like the Dásaris, itinerant jugglers and beggars. They seem to have come from Mysore, and have the head of their

Jhógi.

caste in Bangalore. They are divided into those who sell beads and those who keep pigs. They are dexterous snake charmers, and pretend to a profound knowledge of charms and medicine. They are very filthy in their habits. They have no restrictions regarding food, may eat in any Súdra's house, and allow widows to live in concubinage, only exacting a small money penalty and prohibiting her from washing herself with turmeric water. Their marriage customs are somewhat peculiar. The wedding booth must contain twelve posts, and both bride and bridegroom must present four sheep and ten pots to the assembled guests. Should either fail, he or she receives three blows on the hand, is fined Rs. 3, and has cow-dung and water poured upon the head. Part of the fine goes to the head of the caste, and the rest is spent in liquor, with which the party make merry.

Mondi or Banda.

Mondi (Tamil) or **Banda** (Telugu).—These two names seem to be applied to one and the same class of beggars, who lay no claim to a religious character. Though regarded as Súdras, it is difficult to think them such as they are black and filthy in their appearance and disgusting in their habits. Happily their numbers are few; they wander about singing or rather warbling, for they utter no articulate words, and if money or grain be not given to them they have recourse to compulsion. The implements of their trade are knives and ordure. With the former they cut themselves until they draw blood, and the latter they throw into the house or shop of the person who proves uncharitable. They appear to possess the power of vomiting at pleasure, and use it to disgust people into a compliance with their demands; sometimes they lie in the street, covering the entire face with dust, keeping, it is said, their eyes open the while, and breathing through the dust. Eventually they always succeed by some of these means in extorting what they consider their dues. Their own story of their origin is that their ancestor was a shepherd, who had both his legs cut off by robbers in a jungle. The king of the country in compassion directed that every one should pay him and his descendants (originally called nondi or lame) a small amount of money or grain. This has ever since been so persistently demanded, that the names Banda (tricksy knave) and Mondi (troublesome fellow) have been applied to them. They are divided into bands having the exclusive right to collect alms within a particular tract. Thus one party works the Vellore taluk with its head-quarters at Virinchipuram, and all the Vellore merchants are expected to give them Anna 1¼ twice a year, while village householders have to pay 4 measures of grain per annum. They recognize the authority of a headman living at Conjeeveram, and profess to have the same

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form of worship as other Hindus, though they seem too degraded to care much about the subject of religion. Adultery in the caste is punished by a fine of Rs. 6 imposed upon both offenders, but if a Mondi woman has been honoured by the attentions of a Súdra, a nominal fine of As. 4 is demanded from her.

Panisavan.

Panisavan appears to answer among the Tamilians to the Dásaris or Tádas of the Telugus. It is a mendicant caste worshipping Siva. As the Telugu Súdra castes generally employ Tádas to carry out invitations to weddings and funerals, so do the Tamilians employ the Panisavans, and also engage them to blow conch shells at both these ceremonies. Unlike the Tádas, however, they often employ themselves in cultivation, and are, on the whole, a more temperate, respectable class. The name 'Panisavan' means 'one who does service.'

Sugáli and Lambádi.

Sugáli, Lambádi, or **Brinjári.**—These names seem to be applied to one and the same class of people, though a distinction is made. The Sugális are those who have permanently settled in the district, in some villages of the Punganúr zemindári, and in the Palmanér taluk; the Lambádis are those who commonly pass through from the coast to Mysore; and the Brinjáris appear to be those who come down from Hyderabad or the Central Provinces. They have a dialect of their own, somewhat akin to Maráthi. Of the bands which pass through the district little is known, except that they carry grain to the coast and salt into the interior upon large numbers of pack bullocks, and that they are great thieves. What their religious belief is it is difficult to discover, but the head of the gang appears to be regarded with great reverence and credited with supernatural powers. He is believed to rule the gang most rigorously and to have the power of life and death over its members. Like the Sugális they are strong and robust and the younger women rather good looking, but a hard life soon destroys all pretensions to beauty in the middle-aged. The women wear very gaudy clothing embroidered in various colours, pink being the favourite, and these clothes they never wash, but cast away when they are too tattered to be worn longer. They also adorn themselves with strings of cowries and bangles of brass work or bone in large numbers. Of the Sugális, who form the sole population of their villages in Punganúr and Palmanér, more definite information can be had. All worship the Tirupati swámi and also two saktis called Kósa sakti and Máni sakti. Some three hundred years ago, they say that there was a feud between the Bukia and Múdu Sugális, and in a combat many were killed on both sides; but the widows of only two of the men who died were willing to perform sáti, in conse-

CHAP. IV. MISCELLANEOUS AND MENDICANT CASTES.

Sugáli and Lambádi.

quence of which they have been deified, and are now worshipped as saktis by all the divisions. They are further divided into gangs called 'tandas,' each with a headman or naik, after whom the tanda is named. Their marriage ceremonies last for three days; on the first an intoxicating beverage compounded of bhang leaves, jaggery, and other things, is mixed and drunk. When all are merry the bridegroom's parents bring Rs. 35 and four bullocks to those of the bride, and after presenting them, the bridegroom is allowed to tie a square silver boṭṭu or táli to the bride's neck, and the marriage is complete; but the next two days must be spent in drinking and feasting. At the conclusion of the third day the bride is arrayed in gay new clothes and goes to the bridegroom's house driving a bullock before her. Upon the birth of the first male child a second silver boṭṭu is tied to the mother's neck, and a third when a second son is born; when a third is added to the family the three boṭṭus are welded together, after which no additions are made. Daughters do not count. Married women are moreover distinguished from the unmarried in that they wear their bangles between the elbow and shoulder, while the unmarried have them between the elbow and wrist. Unmarried girls may wear black bead anklets, which are taken off at marriage, at which time they first assume the ravikkai or jacket. Matrons also use an earring called guriki to distinguish them from widows or unmarried girls. The marriage of widows is not allowed, but on payment of Rs. 15 and three buffaloes to her family, who take charge of her children, a widow may be taken by any man as a concubine, and her children are considered legitimate. Even during her husband's life a woman may desert him for any one else, the latter paying the husband the cost of the original marriage ceremony. The Sugális burn the married, but bury all others, and have no ceremonies after death for the rest of the soul of the deceased. They have no tradition of their origin, but this is supplied by the Vagirivélus. Their name is by some said to be a corruption of Supári (areca nut), because they formerly traded largely in this. Now they ostensibly live by selling firewood, but make their chief income by dacoity. Many have of late years been convicted and transported for this offence, and their predatory inclinations have thus been greatly checked.

Odde.

Oddes or **Voddas,** commonly called Wudders, are the navvies of the country, quarrying stone, sinking wells, constructing tank bunds, and executing other kinds of earthwork more rapidly than any other class, so that they have got almost a monopoly of the trade. They are Telugu people, who came originally from Orissa, whence their name. A legend is current among them to

CHAP. VI. MISCELLANEOUS AND MENDICANT CASTES. Odde.

the effect that when Siva and Párvati were one sultry day walking upon the earth, they got very thirsty and hot. The drops of perspiration which fell from Siva were by him changed into a man with a pick and crowbar, while those falling from Párvati turned into a woman carrying a basket. The man and woman quickly sunk a well, with the cooling waters of which the god and goddess refreshed themselves, and in gratitude promised the labourers certain gifts, the nature of which is not now known, but neither was satisfied and both grumbled, which so incensed Siva that he cursed them and vowed that they and their descendants should live by the sweat of their brows. To this the Oddes attribute their poverty and laborious life. Were they more temperate, they might be in very good circumstances, but as soon as they have earned a small sum, they strike work and have a merry-making, in which all get much intoxicated, and the carouse continues as long as the funds last. They are very ignorant, not being able even to calculate how much work they have done, and trusting altogether to their employer's honesty. They are an open-hearted, good-natured lot, with loose morals and no restrictions regarding food, but they are proud and will only eat in the houses of the higher castes, though most Súdras look down upon them. Polygamy and divorce are freely allowed to men, and women are only restricted from changing partners after having had eighteen already; even this limit is not set to the men. Most of them are Vaishnavites, but some, as might be expected from their tribal legend, worship Siva and his consort.

Uppara.

Upparas are a caste of tank-diggers and earth-workers, corresponding to the Uppiliyans of the Tamil districts. This people greatly resemble the Oddes in appearance, customs, and manner of earning a living. Their traditional occupation is, as the name implies (*uppu* = salt), manufacturing earth-salt. They profess to be Saivites and Vaishnavites, but practically worship village deities such as Sunkalamma, Jambulamma and Timmappa.

Médara.

Médaras work in bamboo, weaving winnows, baskets, and mats, or making tatties. The origin of the name is not understood, but they say that their ancestor was produced under the following circumstances. Párvati once wanted to perform the ceremony called gaurinómu, and wanting a winnow for that purpose, was at a loss to know how to get one. She asked Siva to produce a man who could make one, and Siva ordered his riding-ox, Vrishabam, to produce such a person by chewing. Vrishabam complied, and the ancestor of the Médaras being informed of the wish of the goddess took the serpent which formed Siva's necklace, and going to a hill planted its head on the ground.

A bamboo at once sprang up from the spot, which, after returning the snake to its owner, the man used for making a winnow. The snake-like root of the bamboo is regarded as a proof of the truth of this story.

Médara.

In North Arcot there are many Médaras, chiefly living in the large towns or in villages near bamboo-covered hills. Both sexes work together. In their manners they resemble other Súdra castes, and are usually considered a respectable class. Telugu is their ordinary language.

Korava.

Koravas are a vagrant tribe of mat-makers and fortune tellers. In the Telugu country they are called Yerukalavándlu, and there is not the slightest room for doubting the identity of the Koravas and Yerukalas. Most of them are very degraded in their manners. They speak a rude dialect of Tamil, and usually itinerate, trading in salt, drugs and other goods, which they carry upon donkeys or bullocks. Besides this the women weave mats and baskets, and the men pilfer. They are a black, uncivilized set, with strange customs regarding the sexes, selling or pledging their wives and unmarried daughters, taking them back upon redemption of the pledge, with any children born in the interval, and treating them as though nothing peculiar had happened. They are professed thieves, and when any male is sentenced to imprisonment, the wife selects another partner for the period of her husband's absence, going back to him on his release with all her children, who are considered his. This, however, is only the case with the Káttu Koravas who wander about the country. Many of the caste have become more civilized and live in villages, being known as Úr (village) Koravas. They have no association with their ruder brethren, and live by cultivation or trade, while their women are the tattooers of the country.

There are three sub-divisions in the caste, viz., Uppu, Debba and Muc'chu or Shikári Koravas. The first trade in salt and the women sell curry leaves, the second like Médaras work in bamboo, and the third generally barter jungle produce. Of these the Muc'chu Koravas are perhaps the most criminal, though there is not much to choose between them. They have few restrictions as to food, eating mice and cats, but not dogs. Each gang has a headman, and marriage is usually confined to the gang. Burial and not cremation is practised. Women address thier husbands by the curious title of *póyané*, cock.

Bhattuturaka.

Bhattuturaka.—A few of this very intelligent and educated criminal class are found in the north-west of the Chendragiri taluk and in the north of Punganúr. They are really Muhammadans, but never worship according to the rules of that religion

CHAP. IV. MISCELLANEOUS AND MENDICANT CASTES.

Bhattuturaka.

and know little about its tenets. They have no employment save cheating, and in this they are incomparably clever. They speak several languages with perfect fluency, have often studied Sanskrit, and are able to personate any caste. Having marked down a well-to-do householder, they take an opportunity of entering his service and succeed at last in gaining his confidence; then they abuse it by absconding with what they can lay hands upon. They often take to false coining and forgery, pretend to know medicine, to have the power of making gold or precious stones, or of turning currency notes into others of higher value. In this way they make expeditions and accumulate large sums of money, which they squander in their villages on their return. Their character is very well known, but their cunning is such that it is not easy to detect them.

FOREST AND HILL TRIBES.

Irula.

Irulas are a jungle tribe,[11] the name being usually derived from *iruḷ*, darkness, which is supposed to refer either to their dwelling in dark and impenetrable jungles or to their complexion. The word Iṛavuḷa, which is found in the Tamil dictionaries, evidently refers to this tribe. Many members of this forest tribe have deserted their native home and taken to agriculture in the neighbouring villages, but the majority still keep to the hills, living upon roots and wild animals, and bartering forest produce for a few rags or a small amount of grain. When opportunity offers they indulge in cattle theft and robbery. They speak a dialect of Tamil, but at the last census only one Irula returned the tribal dialect as his mother-tongue.

The Irulas appear to have no divisions among themselves, and disclaim with scorn any connection with the Yánádis, whom they hate. Their aversion is such that they will not even allow a Yánádi to see them eating.

They offer worship to the Sapta Kannikas or seven virgins, or to a single deity called Kanniamman, whom they represent in the form of an earthenware oil lamp, which they often place under the Bandári, a tree regarded by them as sacred. These lamps are made by ordinary village potters, who, however, are obliged to knead the clay with their hands and not with their feet. Sometimes they place these representations of their goddess in a secluded cave, but wherever they may place them, no Pariah or Yánádi can be allowed to approach. The chief occasion of worship, as with the Kurumbas and Yánádis, is at the head-shaving ceremony of children. All children at these times who are aged

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[11] They are known as Villiyans in the districts of Chingleput and South Arcot.

less than ten years are collected, and the maternal uncle of each cuts off one lock of hair, which is fastened to a ragi tree bough.

Irula.

They rarely contract marriages, the voluntary association of men and women being terminable at the will of either. The more civilized, however, imitate the Hindu cultivating castes by tying a gold bead, strung on a thread, round the bride's neck, but the marriage tie thus formed is easily broken. They always bury their dead, and on the second or third day sprinkle milk and boiled rice over the grave. This too appears to be in imitation of the Hindu castes.

A few Irulas are credited with supernatural powers, and are applied to by low Súdras for advice. The ceremony is called 'suthi' or 'rangam.' The medium affects to be possessed by the goddess, and utters unmeaning sounds, being, they say, unconscious all the while. A few of his companions pretend to understand with difficulty the meaning of his words, and interpret them to the inquirer.

The Irulas never allow any sort of music during their ceremonies, nor will they wear shoes, or cover their body with more than the scantiest rag. Even in the coldest and dampest weather they prefer the warmth of a fire to that of a cumbly. They refuse even to cover an infant with a cloth, but dig a small hollow in the ground, and lay the newly born in it upon a few leaves of the Bandari tree.

Yánádi.

Yánádis are a dark-skinned tribe of middle height. Some consider that the Irulas are a branch of the Yánádis, who have separated and taken to the more southern country, but the Yánádis speak Telugu, while the Irulas use a dialect of Tamil. This tribe is divided into two classes—the frog-eaters [12] and the non-frog-eaters, of whom the second is alone found in this district, the first being confined to Nellore, and much looked down upon by the Yánádis of North Arcot, who will not even suffer them to touch their pots. Of course they do not eat together or intermarry. In this district, however, the caste does not scruple to eat rats, squirrels and other small animals found in the woods. They are very primitive in their habits, living entirely in the jungles, where they collect firewood, roots, barks, honey, &c. Their ordinary food consists of roots, fruits and honey, and when they kill game, they merely burn or scorch it and consume it more or less raw.

The Yánádis are divided into gangs of about 200 or 300, each with a headman, but all the gangs worship one deity known to

[12] Cf. the frog-eating section of the Paraiyans.

CHAP. IV. FOREST AND HILL TRIBES. — Yánádi.

them as Chentsu. This calls to mind the not dissimilar jungle tribe of that name found in the Kurnool forests. It appears very probable that their deity was some renowned ancestor, now deified in the same fashion that the Kurumbas have deified their ancestral heroes. Chentsu is worshipped under the form of a handful of clay squeezed and put upon a small platform of earth under an árika tree, which they consider as sacred. The lump of earth is sprinkled with turmeric powder and offered flowers, leaves, and cooked or soaked rice, but this ceremony is only performed once a week, on Friday, by the very pious, and the ordinary Yánádi worships at no other time than at marriages, funerals, soothsayings, and the head-shaving ceremony of children. At this last ceremony the assembled guests eat the rice, and then the maternal uncle of each child cuts off one lock of hair and ties it to a bough of the árika tree. For this he is given 2 annas and a yard of cloth, and the head is then clean shaved. The children are next taken to a spot dedicated to the goddesses Ankamma and Póléramma, about whom the Yánádis know nothing except that they were not originally worshipped by the tribe. To these goddesses a fowl is offered, the only instance of animal sacrifice in the caste. During the worship of Chentsu all the devotees abstain from animal food, and take only one meal of roots or fruit on each day. On the evening of the shaving ceremony they light torches and indulge in wild dances around a tall pile of leaves and flowers which they set up in some open spot in the forest.

The same sort of worship takes place at marriages, which are only contracted by adults. The bridegroom approaches the bride, and placing his right foot upon her right foot, ties a 'bottu' around her neck. Then each pours a handful of rice upon the other's head three times, and the ceremony is complete. It has, however, no binding force, and is often or generally dispensed with. Husbands or wives may desert one another whenever, and as often as, they please without suffering in reputation. Caste discipline is very lax, excommunication or fining being altogether unknown. Like the Nílgiri Kurumbas, the Yánádis are regarded as possessing magical powers, and are often applied to for fortune-telling, spells, and such exercises of their power by members of the lower castes. The act of soothsaying is called 'rangam pettédi.' The soothsayer kindles a fire before a 'Chentsu,' to which he offers flowers and leaves, but not rice. Then he and his wife sit on opposite sides of the fire, and the husband drumming upon a drum, pretends to be inspired, and sings a song in praise of his deity, the wife chiming in with a chorus. He then predicts in song the good or bad fortune of the person who has

applied to him. How their other magical performances are carried out, and to what extent, it seems difficult to learn.

The Yánádis both bury and burn their dead, but the former was no doubt the original custom. Early on the following morning cooked rice is offered to the shade of the deceased at the spot of burial or cremation, and is eaten by those present. On the eighth day a lump of clay is put up and worshipped with flowers, leaves, and rice, and the assembled people dance round it. The clay on this occasion, however, represents not Chentsu but the deceased, another argument in favour of considering the Yánádi deity to be one of their ancestors. The dance and feasting upon the rice last all night, and early next morning all the assembled relatives go home and bathe.

They are a simple people and naturally truthful, but without much affection even for their children, who are made to shift for themselves as soon as possible. They are very timid and extremely selfish, the result of their hard life, in which each man and woman finds it difficult to obtain means of subsistence for himself or herself without being burdened with the duty of providing for another.

CHAPTER V.

AGRICULTURE.

AGRICULTURE—Introductory—Seed time and harvest—Rules of husbandry—Agricultural pests—Yield of soils—Deterioration of soil improbable—Manures—Fallows—Implements—Water-lifts. CROPS—Paddy—Sugarcane—Betel vine—Plantain—Ragi—Cumbu—Cholum—Maize—Varagu—Sámai—Korra—Dholl—Beans—Black gram—Green gram—Káråmani—Horse gram—Bengal gram—Gingelly—Ground-nut—Castor oil—Cotton—Indigo—Bhang or Ganja—Hemp—Roselle—Hill aloe—Yerukku—Tobacco—Chillies—Turmeric.

CHPP. V. AGRICULTURE. Introductory.

AGRICULTURE is the chief industry of the district, occupying the whole or part of the attention of fully 75 per cent. of the people, and yielding, except in years of famine, not only food sufficient for the entire population, but also a large surplus for export. A considerable proportion of the agricultural population are not themselves owners of land, but serve for wages, or cultivate the lands of large holders on condition of sharing the produce.

Seed time and harvest.

There are two principal cultivating seasons, each depending mainly upon one of the two monsoons which affect the district. The first, or south-west monsoon, sets in early in June, but previous to this there have generally been light showers towards the end of March and in April, often followed by a good downpour in May, the result of cyclonic disturbance at the period of the change of the monsoons. The early showers are utilized for ploughing up the moistened soil, and in May, if rain enough has fallen, or in June the dry crops are put down after a heavy shower. The commonest of these are ragi, cumbu, varagu and gingelly. Should the rains be late, the cultivating season is delayed until July or August, with the result usually of an indifferent outturn. Even in a good year all the land is not sown so early as May or June, but part is gradually brought under crop up to the end of July.

As soon as wet lands have been thoroughly soaked by irrigation, or sometimes by rain alone, they are usually ploughed and manured, and the ploughing is continued at intervals until the tank upon which they depend has received a fair supply of water, when seeds are sown or transplantation effected, first in the low-lying fields, and when sufficient water is assured, upon the high levels. The dry crops take from three to six months to mature, if planted early; therefore, many of them are off the ground before

the north-east monsoon sets in towards the end of October. Others are matured by this monsoon and reaped about November or December.

Seed time and harvest.

The chief cultivating season is that of the south-west monsoon, which on an average contributes 60 per cent. of the annual rainfall and supports two-thirds of the crops raised in the district. The rains at this time are not very heavy, but are well distributed. A typically good season is one in which the soil gets a good drenching once in fifteen days, after a good burst for the sowing time.

In September the gram cultivation is begun after a fair shower of rain, and the crop has made a good start by the time the north-east rains burst upon the district. These rains last through November into December, and furnish about a third of the yearly supply. They are so heavy that much is unabsorbed by the soil and passes off through water-courses into the tanks, so that by November all reservoirs are generally full. From November to January the cold weather paddy crop is got into the ground everywhere, the extent under rice being larger at this period than at any other time of the year. Garden crops of chillies, tobacco and vegetables are also now raised, and a second crop of ragi or cholum is sown. After the beginning of December rain seldom falls, but the night dews are heavy, bringing the gram to maturity in January, and invigorating all the other crops, which are reaped as they ripen up to March.

Such is the ordinary course of cultivation in North Arcot, slightly varied in different taluks according to their circumstances. It is but seldom that both monsoons are good; ordinarily one or other of them is more or less unfavourable by reason of deficient, excessive, or untimely rains, and the effect varies with the nature of the soil and the crop upon it. In the sandy taluks of the south-east excess produces little harm, while a large deficiency is fatal; and on the other hand, in clay soils retentive of moisture, a moderate drought is easily tided over, but excessive rain produces disease and blight.

Rules of husbandry.

Much of the action of the ryots is based upon superstition, and is in accordance with certain fixed rules which have been handed down through many generations. To some extent they are no doubt the result of long experience, and it is sometimes surprising to see how successful the people are in making a forecast of the season. A great deal of their lore can, however, be regarded as nothing more than superstition pure and simple.

Time is, for cultivating purposes, divided by them into periods of twenty-seven days, each named after one of as many stars, which

CHAP. V. AGRICULTURE.

Rules of husbandry.

are considered each to rule its particular day. The names of these stars and days in their order are—

No.	Tamil.	Telugu.	No.	Tamil.	Telugu.
1.	Aswani ...	... Aswani.	15.	Swáti ...	... Swáti.
2.	Bharani ...	... Bharani.	16.	Vaisákha	... Vaisákha.
3.	Krittiga	... Krittiga.	17.	Anusham	... Anurádha.
4.	Róhini ...	... Róhini.	18.	Kéttai ...	... Jyéshta.
5.	Mrugasíra	... Mrugasíra.	19.	Múlam	... Múlam.
6.	Tiruvádarai	... Árudra.	20.	Púdam	... Púrváshádam.
7.	Punarpúsam	... Punarvasu.	21.	Uttarádam	... Uttaráshádam.
8.	Púsam ...	... Pushyami.	22.	Tiruvónam	... Shrávanam.
9.	Áyilyam	... Áshlésha.	23.	Dhanishta	... Dhanishta.
10.	Magha ...	... Magha.	24.	Sathabisham	... Sathabisham.
11.	Púram ...	... Pubba.	25.	Púrattádi	... Púrvabhadra.
12.	Uttara ...	... Uttara.	26.	Uttarattádi	... Uttarabhadra.
13.	Hasta ...	... Hasta.	27.	Révati ...	... Révati.
14.	Chitra ...	... Chitra.			

The year is similarly divided into twenty-seven periods, called *kártis*, named after the same stars.

The twenty-seven days contain three periods of nine days each, one set apart for the sowing of cereals, another for roots, and the third for pulses, and except within their proper periods these crops are never sown; nor are they upon a Saturday or Sunday. The period for cereals runs from the twenty-second day to the third, for roots from the second to the tenth; and for pulses from the fifteenth to the twenty-third, all inclusive: thus there are four days, from the eleventh to the fourteenth, considered unfit for sowing operations. The day Krittiga is also regarded as of evil influence, being ruled by fire; the kárti of Krittiga occurs about April or May, the hottest season of the year, which may be one reason for the idea. On the Krittiga day of the month Kártiga, it is the practice to light bonfires on every commanding peak, and it is regarded as an evil omen should rain not fall and extinguish them.

The month Chitri (April-May) is, with reason, considered a very favourable season for ploughing, and the operation at that time is called the 'golden' plough (ponnér); but in this month the most auspicious days are those of the waxing moon (excepting Saturdays and Sundays), the 9th of the month, and all the even days. Róhini, Múlam, Uttaram, Révati, Púsam and Hastam are, among auspicious days, the most auspicious for ploughing.

On the subject of rainfall the following beliefs are held. If it should rain on the 10th of Áni (June), 8th of Ádi (July), 6th of Ávani (August), 4th of Purattási (September), 2nd of Alpisi (October), or 1st of Kártiga (November), seasonable rain is likely to fall during the succeeding season. Of these days the two first

Rules of husbandry.

mentioned are the most important, and if rain should not fall on them prices at once rise. On the 6th of Ávani there should be thunder and lightning with rain, or the ryot's mind is not at rest. The hour at which the rainfall occurs on these days is further thought to foretell the character of the month itself, or if it should be in the forenoon, the whole month is expected to be rainy, but if in the afternoon, only the latter half of it. After Kártiga rain is not generally expected, but it is possible that it may fall up to the last day of the kárti of Múla (December-January), though it is not desired, for at that time it is likely to cause blight in the flowering pulses.

The direction of the wind on the Uttarádam day of Ádi is anxiously noted by every ryot, and when the breeze is light, fires are lit that their smoke may show the direction. Should it be towards the east, there will be rain in the north-east monsoon, if towards the south-west, there will be good rains at that time, if towards the north-west, the early rains will be favourable; but if towards the south or south-east, drought and famine may be expected. Thus a Telugu proverb runs 'Uttara tsúchi, yettu rá gampa,' *i.e*, if you see a north wind, carry off your basket.

Many other proverbs are current regarding weather signs. The commonest among the Tamilians are—

'Dúra mandalam : séra malai,
Séra mandalam : dúra malai.'

i.e., a distant halo round the moon betokens speedy rainfall; but a halo close around her, shows that rain is very distant. This is the exact equivalent of 'Near bur, far rain ; far bur, near rain.'

Another also recalls a common proverb in England :—

'Kálai semmánam : kaduga malai,
Andi semmánam : azhudálum malai illai,'

or

'Red sky in the morning means speedy rain,
Red sky in the evening means none though you cry for it,'

When lightning is seen in the north-west of an evening it is regarded as a sign of rain : thus they say 'Kodiya kálil minnal; vidiya kálil malai.' Other proverbs refer to fowls or kites flapping their wings towards the sun, flights of butterflies passing to the south, and ants carrying their eggs to a high and dry spot as prognosticating rainy weather; but perhaps the most curious superstition on this subject is one relating to a period of $14\frac{3}{4}$ days, being the kárti of Pundam, ruled by Varuna, the god of rain, beginning from 6 P.M. on the 14th of Márgali (January), when

Rules of husbandry.

the presence or absence of clouds coming from the north is anxiously watched for and noted. Should they be seen—

				there will be rain in the month of
between 6 P.M.	on the 14th and	6 P.M.	on the 15th	Márgali (December-January).
„ 6 P.M.	„ 15th „	11 P.M.	„ 15th	Tai (January-February).
„ 11 P.M.	„ 15th „	4 A.M.	„ 16th	Mási (February-March).
„ 4 A.M.	„ 16th „	9 A.M.	„ 16th	Panguni (March-April).
„ 9 A.M.	„ 16th „	2 P.M.	„ 17th	Chitri (April-May).
„ 2 P.M.	„ 17th „	6 P.M.	„ 17th	Vaiyási (May-June).
„ 6 P.M.	„ 17th „	6 A.M.	„ 19th	Áni (June-July).
„ 6 A.M.	„ 19th „	noon	„ 21st	Ádi (July-August).
„ noon	„ 21st „	6 P.M.	„ 23rd	Ávani (August-September).
„ 6 P.M.	„ 23rd „	midnight	„ 25th	Purattási (September-October).
„ midnight	„ 25th „	6 A.M.	„ 27th	Alpisi (October-November).
„ 6 A.M.	„ 27th „	noon	„ 29th	Kártiga (November-December).

If a halo be observed round the moon between 6 and 10 P.M. on the full moon day of Ádi, it is believed that good rain will fall in Kártiga; and if one be seen between 2 A.M. and 6 A.M. on that night, Márgali is expected to be wet. A good year for mangoes denotes a bad cultivating season; but a plentiful crop of tamarinds signifies the reverse: thus they say—

'Mangum kálam, mángái. Pongum kálam, puliangái.'

A rainbow in the east in Áni, Ádi or Ávani is supposed to be a sure sign of impending famine; but lightning in the east on the Swáti day of Alpisi foretells good times. In Panguni and Chitri, if the moon when three days old (then called 'pirai') should rise a little south, during the next eight months a little north, and in Tai and Mási due east, the rains will be good, but if not, there will be distress, is a belief expressed in the following Tamil stanza:—

'Mínádum terkosara: Mikkeṭṭum vadakkosara: Taiyum, Másiyum sariága.'

Such are a few of the beliefs regarding weather signs. They are widespread and implicitly believed, influencing the ryot's actions very powerfully.

Agricultural pests.

In some years blight and insects do much damage to the growing crops, and various remedies are adopted to remove them. When ragi suffers from rust it is usual to burn pig's dung to windward of it, and the smoke, passing over the crop, is said to remove the disease. Cholum often suffers from smut, to remove which sacrifices and offerings of rice (pongal) are made to the village goddess, usually on Sundays. The chief insects that do damage are grasshoppers, caterpillars, and some small midge-like flies called andu púc'chi and anna púc'chi, which are variously treated. Sometimes ashes, dung water, or the blood of a fowl or sheep slaughtered in sacrifice close to the crop, are sprinkled over the plants; or fires are burnt close by or pongal is offered. Grasshoppers are often kept away by thorns strewn about the crop, or rice mixed with chunam and saffron is sprinkled over it. Many spells are also used: thus in part of the south of the district, after pongal, three pieces of palm leaf are thrown on three sides of the field, omitting the south, in which direction Tiruvannámalai lies. In the Vellore taluk many ryots go to some temple of Bairavaswámi with grain, which they present to the idol, and taking half as much earth from the temple enclosure, as they brought grain, carry it home and sprinkle it over their blighted fields. Above the ghâts mildew is said to be successfully removed by placing the leaves of a sort of palm called 'parita' in the channel along which water flows to the fields. Each taluk seems to have modes of its own for removing such pests, in addition to the common ones of making pongal and sacrifices.

Yield of soils.

The most trustworthy information which we possess regarding the average yield of cultivated lands will be found in the account of the new settlement which is given in chapter III. The variations from this average are, however, very large, and the harvest is greatly affected by the character of the season, the yield in a good year being probably double the amount of produce obtained in a bad one. But the district is, on the whole, decidedly fertile and the fields of Chittoor, Chendragiri and the Kárvetnagar zemindári give heavier crops than are to be found on any area, of similar extent, in the presidency. This is mainly due to the higher degree of cultivation, and in particular to the extensive use of leaf manure.

Deterioration of soil improbable.

Upon the subject of the deterioration of land opinions differ, but most ryots hold that there has been a falling off in its productive power. Some say that the yield has decreased owing to bad seasons, which have been common of late years, and not to any weakening of the soil; but others charge the railway, the telegraph wires and forest clearing with exercising an evil effect.

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There appears, however, to be no reason to think that there has been any deterioration of the soil which cannot be accounted for by the extension of cultivation and less careful manuring.

Manures.

The amount of manure applied per acre varies with the means of the ryot and the peculiarities of his taluk. Above the gháts it is probably more plentifully used than in any other part of the district except Chendragiri. The ryots of the plateau generally surround their fields with lines of kánaga trees (*Pongamia glabra*), the bright green leaves of which form an excellent manure, while the faded flowers are still more powerful than the leaves. The seeds, after being pressed in order to extract their oil, yield a cake, which is used with the flowers for sugarcane gardens. The plateau also supports large flocks of sheep and herds of cattle, and the droppings of these are available for fertilizing the fields. The kánaga unfortunately is comparatively scarce in the rest of the district, and rare in the south and east. Here ordinary manure, mixed with ashes, is worked into the ground, cattle and sheep are folded on it, and leaves as available are used. For wet lands the dark silt from the beds of tanks is very often employed as well. It is difficult to hazard a guess regarding the amount of animal manure used, but a fair estimate seems to be for

Garden lands	3 to 6	tons per acre.
Wet lands	1½ to 3	do.
Dry lands	0 to 1	do.

The people are keenly alive to the value of manures, and put into the soil as much as they, their children and womankind can lay hands on. The practice of burning cowdung as fuel no doubt seriously reduces the available supply.

Fallows.

In the southern taluks the customary neglect of dry lands is to some extent remedied by the habit of resigning them after one season, allowing them to lie fallow for a year or two, and then taking them up again. There is usually an understanding among the villagers that none shall interfere with this arrangement by applying for the relinquished fields except the ryot who has relinquished them, and if a stranger should make a bid, the preferential right of resident cultivator meets the difficulty. Rotation of crops on wet lands is unknown except in the case of sugarcane, and to a less extent betel; and on dry lands it is not common, or apparently practised on principle, except with varagu. Fallowing of wet lands is never practised where water is available, but dry lands lowly assessed are not unfrequently allowed to lie waste for a year or so.

Implements.

The implements of agriculture are very simple. The native plough is cut out of a crooked tree or branch having the lower end

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Implements.

pointed and shod with iron, and a pole, with yoke fastened to it. Two bullocks or buffaloes yoked to this are driven round the field. Ordinarily three or four ploughs are worked together, closely following one another, and each raising a shallow furrow by the side of that raised up by the plough immediately preceding. Only the surface of the soil is thus disturbed, for the plough has no mould-board, and where the ground has to be tilled to a greater depth than a few inches, as for instance in sugarcane gardens, ploughing is continued across and across for many days. For ordinary cultivation it is said that a yoke of oxen are sufficient for the cultivation of a káni of wet and a káni of dry land. With first-rate cattle more can, of course, be done, and generally bullocks are made to plough a greater extent, but they soon get used up. Besides the plough, a levelling plank (*palaka*), of very simple construction, is needed. The rest of the ryot's stock in trade consists of a cart, a few mammatis (Indian spades), two or three iron picks, some sickles, baskets, and pieces of rope, and perhaps a crowbar.

Water-lifts.

Three modes are employed for raising water. If the lift be not more than a couple of feet in height, a palmyra-leaf basket, having four ropes attached, two on each side, is used. It is worked by two persons, who hold a rope in each hand, dip the basket into the water, and swinging it, when full, up to the level of the channel which has to be supplied, jerk the contents into it. For greater heights the picota (yéttam) or kapila are necessary. The former is worked by men and the latter by cattle. The picota is nothing more than a long beam having a bamboo carrying a bucket at one extremity. It is raised and depressed by men or boys walking upon it, and supporting themselves by a bamboo rail. Except above the gháts women never work these machines; there they may be often seen mounted upon the beam and working it up and down.

The kapila lift is formed of a large hemispherical leathern or iron bucket, having a long leather tail open at the end. One rope supports the top of the bucket and another is attached to the tail. The former passes over a wheel working between two posts that project at an angle over the water, and the latter runs over a roller on a level with the channel. As soon as the bucket is filled, a pair of bullocks run down a steep slope, drawing a yoke to which the two ropes are fastened. While in the act of being lifted the tail of the bucket is drawn up level with the mouth, and the water cannot therefore escape; but as soon as the level of the channel is reached, the tail is drawn over the roller, while the mouth rises to the upper wheel and the whole of the water is discharged into the channel. The bullocks are then backed up the slope and the

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operation is repeated. Sometimes a couple of yoke of cattle are employed, and the ropes being let loose from the yoke each time, the animals are led round by a side path to the summit while the second pair is descending, and are thus saved much trying labour. An improved kind of kapila has, within the last few years, been introduced, but has been adopted as yet by a very few. A large drum revolving horizontally is set up by the side of the well, and to it the ropes of two kapila buckets are attached. A bullock walking round winds up one bucket, while it lets the ropes of the other run out. While one bucket is discharging the other is filling, and the bullock turning, reverses the motion of the drum. An ingenious carpenter of Arni has lately formed a model of this kind of machine, in which the bullock continues its circular course without turning, but it has not yet been practically tested. An ordinary kapila with a pair of bullocks raises about three times as much water as a picota, and a single strong bullock working a drum kapila, with less tax upon its strength, is found to raise half as much again as a pair with the ordinary single-bucket lift, but the cost of erecting the drum and the novelty of the idea has stood in the way of this improved lift being used.

CROPS. Paddy.

Paddy—Rice, English; Vadlu, Telugu; Nellu, Tamil (*Oryza sativa*).—There are about a hundred different varieties of this grain grown in the district. The chief are called in Tamil—

Nír valli.	Garuda samba.	Managathé.
Sada samba.	Milagu samba.	Kódan samba.
Pisánam.	Sivan samba.	Vella kár.
Tuyyamalli.	Pic'chavári.	Kuttai kár.
Chinna samba.	Mapási.	Navarai kár.
Mánavári.	Sítá bhógam.	Mutta kár.
Periya samba.	Jíraga samba.	Mósanam.
Swarnavári.	Kamban samba.	
Séru samba.	Sughadási.	

Some of these are favourites in one taluk, and all but unknown in another.

Almost all of the irrigated land in the district is under paddy, and if water suffices, crops of it are raised upon the same field one after another as speedily as possible. Under large tanks, therefore, there appears a perpetual spread of verdant fields in all stages of growth.

The land is prepared by ploughing after being flooded by rain or from a tank. The former process, called in Tamil 'puludi,' is adopted when water is scarce, and the latter, called 'séru,' is considered the better of the two. Ploughing is continued, after short intervals, for from six to a dozen times during a month or

six weeks, manure being spread over the land in the shape of farm-yard refuse and ashes. Leaves and the small boughs of various trees are also added, where available, just before sowing time, and are trodden into the mire by men and women. In the case of saltish soils oil-cake is sometimes employed. When the surface has been levelled by means of a plank drawn by oxen, the field is ready to receive seed or seedlings. In the case of broadcast sowing the seeds are well trodden in by men, but it is more usual to sow in a seed-bed and transplant, the advantage of this plan being that water and labour in weeding are economised as well as manure. Transplantation takes place when the plant is about 10 inches or a foot in height, and the seedlings are planted by parties of women in the miry field at a distance of an inch or two from one another, according to the richness of the soil.

Before being sown the seed-grain is soaked in manure and water for several hours, and then, being put into a basket or pot, is covered with straw, upon which a heavy weight is placed. A little water is daily sprinkled upon it, and it is occasionally exposed to the light, until on the fourth day it has sprouted and is ready for the field or seed-bed. After being sown, water is allowed to stand on the soil for one day, and is then drawn off for four or five days until the shoots have made a good start. From thenceforward until the time of ripening constant irrigation is necessary, about a couple of inches of water being made to stand upon the land, but not to stagnate; a regular flow from field to field is allowed once in two or three days. Oil-cake is sometimes used as a manure, powdered and thrown over the crop when a month old. A few days later the first weeding takes place, and the plants are, if necessary, thinned out. Weeding is repeated two or three times as required, and if the ryot's means allow it. The ears begin to form about a month before the crop is mature, and a fortnight before reaping irrigation is discontinued that the grain may harden. Different varieties of paddy take from three to six months to mature. At reaping the plants are cut with a short sickle about 2 inches from the ground, tied into bundles, and carried to a dry spot used as a threshing floor. A flat rock is generally selected for this purpose, but if none be handy, a piece of ground is levelled, watered and tamped with clay until it has a hard surface. The bundles are then beaten smartly upon the ground, and afterwards, being untied and loosely spread over the threshing floor, are trodden out by cattle tied neck to neck and driven in a circle. Finally, the straw is formed into bundles and the grain winnowed in some high and airy spot.

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Rice is not supposed to be fit for food until it is at least three months old, but the poorer labouring classes often use it as soon as it is hard enough to be pounded.

There are two crops of rice, the hot and the cold weather crops, called kár and vaisákham, after the months in which they usually ripen. The kár crop is sown about June or July, and being a six-month crop is harvested about December. It is quickly followed by the vaisákham, a four-month crop, which is off the ground by April or May. The only remarkable kind of paddy which needs separate remark is called 'munagada' or submerged. It is grown, only in a few localities, in the beds of tanks before they are covered with water. As soon as it has sprouted well it is said to live, though submerged, below as much as three feet of water. The stem is as thick and strong as a stalk of cholum, but the grain is coarse and not much prized.

In the husk the grain is known in English as 'paddy,' in Tamil as 'nellu,' and in Telugu as 'vadlu.' It is converted into rice (Tamil *arisi*, Telugu *bíyam*) by the process of husking, which is performed either by parboiling and then pounding, when it is called 'pulungal arisi' (Tamil) or 'uppidi bíyam' (Telugu), or by simply drying and pounding, when it is known as 'pac'chai arisi' (Tamil) or 'pac'cha bíyam' (Telugu). Pounding is effected in two ways, the common mode being to beat the paddy in a hollow stone with a long pole shod with iron, but sometimes a lever (yéttam) is used, which is worked by the foot. Bráhmans entirely confine themselves to dried grain, considering that which has been parboiled as unclean.

The mode of boiling rice for food differs among different castes. Some, and especially Bráhmans, use only so much water as the grain will absorb in the boiling, while others use more, generally twice the bulk of the rice, and what remains, called conjee, is considered a refreshing drink. Boiled rice is called 'sóru' (Tamil) and 'annam' (Telugu). The grain is sometimes ground into flour 'má' (Tamil), 'pindi' (Telugu), or broken into pieces 'noi' (Tamil), 'núkalu' (Telugu), and made into gruel or cakes prepared with milk, buttermilk, jaggery, or sugar.

Sugarcane.

Sugarcane—Karumbu, Tamil; Cheruku, Telugu (*Saccharum officinarum*).—This crop is always raised upon irrigated land, more often under a well than a tank, since the former affords a more certain supply, and the canes need constant watering for the ten or eleven months that they are growing. It also needs much manure, and is an expensive crop to raise, so that only the richer ryots attempt it. In many parts it is not the fashion, so that though

there may be wealthy farmers, little or no sugarcane is seen. It is chiefly raised above the ghâts, where its cultivation is carried on more carefully and scientifically than elsewhere, but a good deal is also grown in Chittoor, Chendragiri and the west of Kárvetnagar.

There are several varieties of the cane, but the ordinary ones are called rasthâli, námam, izar, red and big, which only vary in the size or colour, and are cultivated in the same way and with much the same results. The crop is never grown on the same ground in consecutive years. A field, which has carried paddy, ragi, or other irrigated crop, is therefore selected, and in December its preparation begins. Should it lie low, a channel is dug all round to act as a drain, and the soil is daily ploughed across and across for several days until it has become thoroughly pulverised. To assist in producing this effect, men with heavy sticks beat the hard clods to pieces. When the tilth is fine enough, the surface is levelled and sheep are penned on it for several days. A great amount of farm-yard manure, with faded kánaga flowers, is also brought (sometimes, it is said, as much as 75 tons to an acre) and worked in with ploughs. Then the field about April is divided into ridges, separated by channels, and in the ridges are lightly placed cuttings of the previous season's cane, about a thousand to the acre, each set in a little powdered manure. For a fortnight the channels are flooded once in four or five days until the cuttings send out shoots; then the soil is loosened with a hoe, or by a plough drawn by men, and no water is allowed for a week. After this the channels are cleared, the plants earthed up, and irrigation is carried on regularly twice a week (except in rainy weather) until the canes mature. When they are a foot high green leaves (above the ghâts always those of the kánaga) are buried in the trenches between each row. Above the ghâts also when they have attained the height of a yard, ryots dig pits in the irrigating channels at the head of each trench, and in each pit place a maund or two of kánaga oil-cake mixed with fresh cow-dung and water. This is allowed to ferment for four days, and at the end of that time, as the stream passes down each trench, a boy stirs up the mixture, a little of which mingles with the water and is carried along with it. This mode of manuring has the very best effect, but is only repeated once more during the growth of the crop.

When the canes are 4 feet high, their sharp leaves begin to be troublesome, and are therefore rolled round the canes and tied, thus protecting them from the sun and hot winds, preventing splitting, and keeping them succulent. When 6 feet high upright posts are planted on the ground and bamboos tied to them horizontally, by which the canes are supported; a higher row is added as the crop

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increases in height. All this time weeds have to be carefully eradicated, and the thorn hedge surrounding the field kept intact, as cattle graze greedily upon the canes. In February or March the crop is cut close to the ground, except a portion left for cuttings, and a mill having been set up hard by, the juice is pressed out of each cane, after a foot or so of the top, which is sapless, has been cut off and thrown away. The old native mill is a rough looking machine, made to take to pieces, but in spite of its roughness it performs its work fairly well. Two cylinders of Acacia wood are placed vertically side by side, having screws cut near their upper extremities which work into one another. One of the cylinders is slightly higher than its neighbour and has a horizontal arm at its summit, which by means of ropes is dragged round and round by oxen. As the cylinders revolve, the canes are introduced between them and carried through, parting in the passage with their juice, which flows along a trough into a pot set on the ground. Each cane is thus pressed two or three times. This country mill has, however, now been largely superseded by the Behea mill, which hast three-ribbed iron rollers and both works more quickly and gets more juice out of the cane. As soon as enough juice has been obtained to fill one of the broad shallow boilers the process is stopped for a time, and the liquid, before it has had time to ferment, is boiled, with some lime water, for about an hour, over a fire of wood and sugarcane refuse, which burns with great heat. When sufficiently boiled it is poured into a tub or hollow in the ground faced with stone, and is slowly worked about with a stick having a circular piece of wood at the end, until it stiffens and becomes jaggery. About 200 canes of the small and 175 of the big variety generally turn out a Madras maund of jaggery. The total yield of an acre is worth at the lowest Rs. 150, and often as much as Rs. 300 where it is carefully tended.

To produce coarse sugar the boiled juice is rapidly stirred about with a rolling pin until it has set. For fine sugar and sugarcandy the process is slightly different, the boiling being stopped earlier than for jaggery. When sufficiently boiled the juice is put into pots, which are covered, and allowed to stand for a fortnight, by which time their contents have become solid. A few holes are then made in each of the pots, which are placed upon empty ones, and in the course of three weeks most of the molasses drips through, leaving behind a crust, some two or three inches deep, of fine sugar, which is at once removed, the rest being allowed to drain for about a month or six weeks longer. The sugar thus produced is further purified by boiling. It is then strained and boiled again for another hour, towards the close of which a little milk and ghee

are added. Finally, the syrup is removed from the fire and well stirred for a quarter of an hour. When dry the finest native sugar, called búra, is produced.

To make sugarcandy, the second of the above two boilings is slightly curtailed, and the syrup is poured into pots in which are placed thin spits of bamboo. Cloth is then tied over the mouths of the pots, and they are stood for forty days upon paddy husk. After that the fluid portion which remains, called 'kalkandu pánakam' is poured off, and considered a very good and wholesome beverage. The bamboo spits coated with sugar crystals are separately secured. This manufacture is almost confined to the town of Baireddipalli in the Palmanér taluk.

Sugar and jaggery are largely used by the natives, mixed with their food or spread upon cakes with ghee. Pieces of the cane are often bought by the poor, stripped of their bark, and masticated.

Betel vine.

Betel vine—Vettilai, Tamil; Tamalapák, Telugu (*Chavica betel*).—This is a three-year crop, grown upon land capable of incessant irrigation and therefore usually served by a well. The varieties grown are—

Tamil.	Telugu.
Kamavéru.	Kamavéru.
Vella vettilai.	Kallejédi.
Karuppu vettilai.	Nallákulu.
Gaulipátram.	Gaulipátram.
Kósáttu.	Kósáttu.

The land is prepared about August, not by ploughing but by having long parallel trenches, 1½ feet × 1½ feet, dug across it at intervals of 5 or 6 feet. The excavated soil is placed upon the spaces between the trenches, and two double rows of linseed (*avitti*, Tamil; *avasi*, Telugu) are sown thickly and covered with manure. The trenches are then flooded twice a day, and the newly-sown seeds, being constantly moistened with water from the trenches, sprout within a week. In three months, or about October or November, the plants have attained a height of 5 or 6 feet, and it is time to put down the vine cuttings. These are cut about a foot long, with two or three joints, and are planted in well-manured pits dug about 2 feet distant from each other. Two cuttings are set in each pit and are covered with manure. In two or three weeks they send out shoots, having been carefully protected from the sun by varagu straw which is drenched with water several times a day. When the linseed is 10 feet high the four rows are tied together above the vines, and being strengthened with bamboos, form a stiff support on which the vines climb. Once in three or four months the pits are well manured, the soil opened,

CHAP. V. CORPS. Betel vine.

and the vines earthed up. They begin to yield when nine or ten months old, the leaves being nipped off by means of an iron instrument worn on the thumb and index finger. They continue to yield leaves for two or even three years; the leaves are tied in bundles of four hundred each, and the usual price of such a bundle is an anna. An acre in two years produces from 5,000 to 7,500 of these bundles, worth from Rs. 300 to Rs. 500, but the profits on the cultivation, which is very expensive, are given at from Rs. 70 to Rs. 100 an acre. About 5,000 cuttings, worth Rs. 50, are planted in an acre, and much manure is consumed. The trenches have always to be full, and the intervening soil kept moist. While the vines are growing, plantains or other plants are often grown between the trenches.

The leaves of the betel are chewed by natives with areca nut and fine chunam.

Plantain.

Plantain—Válai, *Tamil*; Ariti, *Telugu*; (*Musa paradisiaca*).—These plants, like betel, require constant irrigation. There are a large number of varieties, the chief being—

Tamil.	Telugu.
Rastáli.	Rastáli.
Bondai.	Bonda.
Bengála.	Bangála.
Yánai.	Yénuga.
Pé.	Vetti.
Sevva.	Yerra.
Pac'chai.	Pac'cha.
Yennai pannayam.	Núna punnayam.
Pidi mondai.	Pedicha.

According to the agricultural sástram or maxim, the cultivation should be begun in January or July, but practically it is commenced at any time that suits the ryot.

For each plant a pit, measuring 2 feet each way, is dug and filled with rich soil. The pits are two or three yards from one another, and in each a sucker is planted, so that from 700 to 1,000 plants can be grown on an acre. Irrigation once a week is needed, and the ground is opened up and weeded once in two or three months, and when the flowers are forming fresh manure is applied. Ten or twenty suckers spring around each root, but all except two or three are destroyed as they weaken the parent tree. When the plant is six or seven months old, a single flower stem is thrown out, and four months later the fruit is ready to be cut. This is done while it is yet green, as the fruit ripens after it is plucked. Sometimes the flower, and sometimes the unripe fruits, are picked

and used in curries. While the garden is yet young, sweet potatoes and different kinds of greens are sown between the plants, and the profits per acre are thus said to reach Rs. 100 a year. As soon as the fruit is gathered, the plantain is cut down, and one of its suckers left for the next year's growth, the others being available for new gardens. In this way the land is cultivated for from two to four years, after which it is cleared and used for some other wet crop.

The leaves of the plantain are used for packing butter, jaggery, &c., and for plates. The fibre of the stem is used as bast for tying up plants: it would make an excellent rope fibre, but is not used for that purpose.

Ragi.

Ragi, Telugu; Kévar, Tamil (*Eleusine corocana*).—This is a very favourite four-month crop, the grain being largely used by the labouring classes. It is not a dainty food, but it is very nutritious. There are four varieties, the big, small, white and black. Ragi is grown both upon irrigated and unirrigated land, but most commonly in that which is commanded by a well. When dependent upon rainfall alone it is sown so as to get the benefit of one or other of the monsoons, that is from May to July and from October to December. Under wells and tanks it is sown and reaped throughout the year.

The land is first ploughed from four to eight times after heavy rain in dry, and after flooding in wet land. Previous to ploughing, cattle or sheep are often folded on the field, in which case no further manure is needed; but if this is not convenient, ordinary manure and indigo refuse are placed on the field and ploughed in, the quantity varying with the ryot's means. In rain-fed lands the seed is sown broadcast after a good shower, 25 lb. to an acre, and covered by a light ploughing. In about a month the soil is opened by another ploughing, or is hoed up and weeded, after which nothing further is required except watching. With ragi is sometimes sown korra, sámai, kárámani, castor oil, dholl, or indigo.

Under irrigation the crop is usually transplanted from a seed bed when about a month old. The field is laid out in small plots, which are watered once a week, and weeded once.

Only the ears of ragi are cut as they ripen, and being heaped together for two or three months, the grain is beaten out with sticks or trodden out by cattle. It should be kept some months before use. Being ground into flour it is formed into a sort of pudding (kali, Tamil; sankati, Telugu), gruel (kúlu, Tamil; ambali, Telugu), or various sorts of cakes. The pudding is prepared thus: the flour of rice, cumbu, or cholum is put into boiling

CHAP. V. CROPS. Ragi.

water, and when it is three parts cooked, three times as much ragi flour is added, and the whole boiled into a stiff paste. To make the gruel, ragi flour is mixed with water and allowed to stand for twelve hours, by which time a slight fermentation has set in. Thin rice, cumbu, or cholum flour being boiled, three times their bulk of the fermented mixture is added together with salt. The mixture is again stood for twelve hours, after which it is drunk dissolved in water or buttermilk. The cakes usually made are composed of ragi flour, salt and water, formed into a paste, flattened by the hand, and baked on a flat pan. They are eaten with jaggery.

Cumbu.

Cumbu, Tamil; Sajja, Telugu (*Panicum spicatum*).—This is another favourite four-month crop, which is never transplanted, and is usually grown on dry lands. It is sown in the south-west monsoon about May or June and harvested before the beginning of the north-east rains. The varieties are the big and small. The first showers in the year are utilized for ploughing, which is repeated four or six times, manure being worked into the soil. After a heavy shower 10 or 12 lb. of seed are scattered, and the soil again lightly ploughed over. Sometimes dholl, kárámani, indigo or gingelly are thus sown with it. The crop requires one, and sometimes gets two, subsequent ploughings and weedings, the first having the effect of setting the seedlings in line. Rain once a fortnight suits it best, but if healthy it is unaffected by three weeks' drought. Excessive wet is injurious to it, so cumbu is generally grown on porous soils. As birds are very fond of the grain, the field needs careful watching. Like ragi it has only the ears cut, and beaten or trodden out after being thoroughly dried. It is prepared in the same way as ragi, except that it is first husked by pounding. The straw is largely used for roofing huts.

Cholum.

Cholum, Tamil; Jonna, Telugu (*Sorghum vulgare*).—There are three varieties of this grain, the white, red, and yellow. It is ordinarily a cold-weather crop, sown about November and reaped four months later. It is, however, also sown for the south-west monsoon, and should then be watered two or three times a month, unless the rains are good. The preparation of the soil is similar to that for the dry grains already described, but transplanting is never practised. It is generally sown by itself, though rarely indigo or gingelly grows with it in the south-west monsoon, and horse gram is occasionally raised with the yellow sort in the cold weather. Owing to its height the crop is cut low, and the ears subsequently removed. The straw is a favourite and excellent

Cholum.

food for cattle. The grain is pounded into flour, mixed with water, and after standing for some time, is boiled, bran being added when it is nearly done. Cakes are also made of the flour.

Seeds of the *Sorghum saccharatum* were distributed some years ago and experimented upon with little success by the natives. From carelessness or other cause the outturn has been less than that of the indigenous variety, and as there is no demand for the grain, and ryots will not raise crops simply for forage, it is not likely to become popular.

Maize.

Maize—Mokkácholum, Tamil; Mokkájonna, Telugu; (*Zea mays*).—This is not a common crop, but is largely and successfully cultivated in the environs of Vellore, where it is freely irrigated and grown on land well manured with cow-dung, ashes and sheep's wool. It is also grown in Chendragiri to some extent. There are two varieties, the big and the small, the former ripening in three months, and the latter about a fortnight earlier. It is always sown by itself, from April to September, in lines, and has to be watered every alternate day in the hot weather, but in the cold season only once in four or five days; the yield of the latter season is the heaviest. The cobs are bought by the poorer classes and eaten raw or parched; the stem is greedily eaten by cattle.

Some attempts to introduce a better sort of seed have been made, and the people have been more ready to take to it than to *Sorghum saccharatum*, but with the cessation of the impulse the interest in the improvement of the crop seems to have died away.

Varagu.

Varagu, Tamil; Árike, Telugu (*Paspalum frumentaceum*).—There are two varieties of this grain, the big and the small, both sown on dry land alone, in July or August, and reaped in the following January or February. It is a very hardy crop, withstanding drought continued for a month, and is considered to exhaust the soil greatly, so that ryots often let a field lie fallow for a year after varagu. Sometimes castor oil, dholl, sámai and other grains are grown with it.

In the Kárvetnagar zemindári the small variety of this grain is cultivated with more care than elsewhere, and is often grown on wet land, into which it is transplanted. Being watered about once a week, it yields three times, once in the fourth month, again six weeks later, and finally after six weeks more. After the first and second yield, the land is ploughed up lightly. The first crop is the best, being twice as much as the second. The plant is usually cut near the ground, and stored for some time before the grain is trodden out. The grain has a hard husk, which is removed by

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grinding in a handmill, the surfaces of which are coated with clay and ashes to prevent excessive friction. It is then boiled and eaten like rice by the poor. Cakes are also formed of its flour.

Sámai.

Sámai, Tamil; Chámalu, Telugu (*Panicum miliaceum*).—This is another six-month dry crop, raised at the same period as varagu. It, however, produces a scanty outturn, and is not much cultivated. The grain is boiled like rice: one of the commonest preparations is called paramánam. It is also made into cakes.

Korra.

Tinai, Tamil; Korra, Telugu (*Panicum italicum*).—This is a four-month dry crop, sown in July, generally upon unirrigated land, but occasionally under wells, when it is irrigated once a week. It is generally sown by itself. Only the ears are reaped, and the grain husked and boiled like rice, the preparation being called paramánam. Cakes are also made of it.

The crop is a pretty one, having drooping ears something like barley.

Dholl.

Dholl—Tuvarai, Tamil; Kandulu, Telugu; (*Cajanus Indicus*).—This is a dry crop, usually sown in unirrigated land about July and reaped in December. There is nothing peculiar in the cultivation. When the pods are ripe the plant is cut down near the root, and after being dried for two or three days, is beaten upon the ground or on a bamboo mat, until the pea-like seeds fall out. They are then soaked in water with which red earth has been mixed, and kept so for a day or two, after which they are dried in the sun, and being bruised in a handmill are at once ready for food. Dholl is considered very nutritious; sometimes it is reduced to flour and made into a broth, and sometimes cooked as a curry with tamarinds and vegetables. The stalks of the plant make an excellant charcoal, esteemed the best for gunpowder.

Beans.

Moc'chakottai, Tamil; Anumulu, Telugu (*Lablab vulgaris*).—This crop is always sown with some other grain, and chiefly with cumbu, ragi or cholum, in June or July, but is reaped in December or January. The pods are plucked when ripe, and when dry are beaten with sticks to separate the beans. These are cooked like dholl, or eaten after being only boiled. They are largely given to cattle, and in the south of the district are not much consumed by the people. There are two varieties, the white and the red.

Black gram.

Black Gram—Ulundu, Tamil; Uddalu, Telugu (*Panicum flavidum*).—This is usually grown upon paddy lands after, or

just before, the paddy has been reaped. The seeds are cast into the cracks which form after irrigation is discontinued, and no ploughing is required. Sometimes, however, it is grown upon dry land with cholum or castor oil. The ordinary sowing time is August or September, and the harvest comes in by December or January. On wet land it should have irrigation twice a month. The grain is bruised in a mill and made into a curry with vegetables and various condiments. The pulse is often made into cakes called vadai, which are always used by Bráhmans at their anniversary ceremonies. Black gram.

Green gram.

Green Gram—Payar, Tamil; Pesalu, Telugu (*Phaseolus mungo*).—This crop is cultivated and used much in the same way as black gram, but is less frequently grown on dry paddy-fields. The flour is employed in washing the body instead of soap.

Kárámani.

Kárámani, Tamil; Alashandulu, Telugu (*Dolichos sinensis*). —This is usually sown on dry lands with cumbu or cholum. The pods are picked, dried, and beaten with sticks, and the seeds used much in the same way as black and green gram.

Horse gram.

Horse Gram—Kollu, Tamil; Ulavulu, Telugu (*Dolichos uniflorus*).—The time for sowing horse gram is September or early in October. Only the poorer soils are fit for it, since upon rich land it runs to leaf and produces few flowers. It is never irrigated, the north-east rains, with the cold weather dews, being sufficient to mature it by January, when the plants are plucked up by the root, stored till they are dry, and then beaten or trodden out. The preparatory ploughing is slight, and the manure given to the land none. It is not used for human consumption, but given to draught cattle and horses.

Bengal gram.

Bengal Gram—Pac'chai Kadalai, Tamil; Chenigalu, Telugu; (*Cicer arietinum*).—Very little of this is grown in the district. The season for sowing is September, and the cultivation similar to that of horse gram. The grain is used in curries, and is also made into flat cakes, taken with curry.

Gingelly.

Gingelly—Yellu, Tamil; Núgalu, Telugu; (*Sesamum indicum*). —There are two varieties of this very favourite dry crop, the big and the small. It is an early crop, being sown, if the rains are sufficient, in April or May, and reaped four months later. It is sometimes irrigated, and is then sown as early as January or February. The plant is cut near the ground, and, after being dried for a week or two, is beaten with sticks. The oil is extracted

Gingelly.

in oil mills, a measure being yielded from four measures of seed. Gingelly oil is considered the very best, and is much used in native cookery, as well as for anointing the body: the cake is given to cattle. Much of the seed is exported from the district and sent to Europe, where a good deal of the so-called olive oil is extracted from it.

Ground-nut.

Ground-nut—Vér kadalai, Tamil; Vér chenigalu, Telugu; (*Arachis hypogæa*).—In parts of the district, particularly Wálájá, Chittoor and Vellore, this is extensively raised: in other parts, and particularly above the gháts, it is hardly seen. The field is manured by penning cattle upon it, after which it is ploughed some half dozen times, and in July or August the seed is sown. If the unbroken nuts are used, 30 lb. are required for an acre, but if they are broken and the kernels only planted, 10 lb. suffice, though the yield is less than in the former case. The field requires irrigation (generally supplied from a well) once a month, and, if possible, gets it once a week. No other seed is sown with it. After six or seven months, the plant withers, a sign that the nuts, which bury themselves in the ground, are ready. The soil is then moistened and dug up with the small pick called 'kallakaṭṭu,' and the nuts, twenty or thirty fold of the amount sown, are collected and husked. The oil is obtained by pressing in a mill, and is used for lamps and sweetmeats and for adulterating gingelly. The poorer classes are fond of eating the nut raw or parched. It is the same as that called by the Americans the pea-nut.

Castor oil.

Castor oil—Muttu, Tamil; Ámidálu, Telugu; (*Palma Christi*).—This plant, of which there are two sorts, the small and big, is rarely sown alone, but generally in lines among ragi, or other occasionally-irrigated crop, or by the margin of a water channel. It will, however, grow without irrigation, and in all sorts of out-of-the-way places, in backyards, hedges, &c., where it is planted for domestic use. The sowing time is June or July, and the reaping from January to April; but, if watered, the plant is said to live and yield for two years. In this district, however, it is allowed to die, and a fresh crop is raised annually. It grows to the height of 7 or 8 feet, and bears clusters of round seed pods, which, as they from time to time split, are gathered. After a month or more the pods are put upon a hard piece of ground, and a small plank of wood is rolled briskly over them, releasing the seeds. These are first boiled in water, or fried in a pan, and then pounded with a rice-pounder. They are next mixed with five times their bulk of water and well boiled. The oil rises to the

surface, and is either skimmed off, or more often collected with the palm of the hand, which, laid on the surface, brings away a small amount of oil adhering to it. This is rubbed off upon the side of a pot, and the process repeated until all has been removed. Being by this time dirty, it is next reboiled and strained.

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Castor oil is used as a purgative medicine and for lamps. It is mild in its effects compared with that produced in Europe, and is used to an almost incredible extent in the case of infants, about a tea spoonful being given daily by every mother, until the child is two or three years' old. Every adult takes a dose once a month and regards it as a necessary of existence.

Cotton.

Cotton—Panju, Tamil ; Patti, Telugu ; (*Abutilon Indicum*).—A very little of this is grown, as the black cotton soil does not occur in the district. It is sown in July, sometimes with ragi, and can, it is said, be kept on the ground for three years bearing flowers annually, but very little is known of its cultivation.

Indigo.

Indigo—Níli, Tamil and Telugu (*Indigofera tinctoria*).—This is a valuable dry crop, which is chiefly raised in Vellore, Gudiyáttam and Kárvetnagar. It is rarely irrigated, but is sometimes sown in ragi fields after the first weeding, and in paddy-fields a few days before reaping. On dry lands it is often grown with cumbu, cholum or ragi from November to January. The land is not usually manured, and indigo, so far from exhausting, is believed to strengthen the soil.

The leaves are cut three times just before the plant flowers. The first cutting takes place when the crop is three months' old, after which the field is lightly ploughed. The other cuttings follow after intervals of two or three months, and are better than the first. The leaves are tied into bundles, called 'biguvus,' with ropes 2½ yards long, and from fifty to a hundred of these are got off an acre, the price varying in different years. Ryots rarely prepare the dye themselves, but sell the leaves to some one who possesses vats, and from whom they have often received advances. A few, however, manufacture it on a small scale in large earthenware pots about 2½ feet high. The leaf is treated both dry and fresh, but in the pot manufacture fresh leaves are never used. From dry leaves the better dye is obtained, but it is rather risky, as a sudden shower of rain falling upon the drying plants brings out the colour at once and spoils them.

The mode of manufacture is this:—The fresh leaves are packed in a masonry vat and kept down by a bamboo mat, upon

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Indigo.

which heavy poles are laid. Clear water is added, and they are left to soak and ferment for a day. A scum darkening to purple rises amidst violent fermentation, which subsides as the scum reaches a copper colour. The water at this stage is drawn off through a vent into another vat upon a lower level, where for about three hours it is churned with wooden boards. A decoction of néredi bark, or lime water, is added when fine granulations are seen to form, and the liquid is allowed to settle. After a few hours the clear water is drawn off, and the thick residuum placed in a boiler and boiled until all scum has disappeared. When it becomes stiff, it is strained through a clean cloth into moulds and left to dry.

In the pot manufacture, which was the original mode practised in the district, the process is somewhat different. Dry leaves are soaked in water and boiled for about an hour, by which time all the dye has been extracted. It is then allowed to stand, and the clear water being poured off, the rest is boiled and strained into moulds. Dry leaves are also used in vats, but only require to be soaked for six instead of twenty-four hours. The rest of the process resembles that adopted for fresh leaves. Indigo refuse forms a very much prized manure.

This industry is a failing one, and has been so for several years. All over the district fine masonry vats may be seen abandoned and falling to ruin.

Bhang or Ganja.

Bhang—Ganja, Tamil and Telugu.—This is only cultivated to any large extent on the Javádis by the Malayális. As the soil is very rich, no manure is used. They never plough, but hoe up the field and sow the seed in July or August, reaping it in December or January. The leaves are picked and heaped in a hut for a month, being turned every three days. In a month they are properly seasoned and sold to the people of the plain. Bhang is used as a medicine, and is smoked by Muhammadans and the lower orders of Hindus.

Hemp.

Hemp—Chenappu, Tamil; Janappa, Telugu (*Cannabis sativa*).—This fibre crop is reaped in about two and-a-half months, and is generally sown in July, but also at any other time. It is believed to exhaust the soil very much, and is not largely cultivated. The average yield of an acre is about 25 Madras maunds of fibre, which is prepared thus:—The plants are cut when 4 or 5 feet high, the stem being then as thick as a man's finger. They are then dried, beaten to separate the seeds, and tied into bundles, which are soaked in stagnant water, until fermentation has set in, and

the tissues begin to rot. Each bundle is next beaten on a stone, washed, and beaten again, until the fibres are clean, when they are exposed to the sun and dried. Sometimes they are buried in pits for a time before they are finally washed, cleaned and dried. The fibre, being spun into twine, is used for making fishermen's and fowlers' nets, and also for weaving gunny bags. These are largely produced in Pallikonda in the Vellore taluk.

Hemp.

Roselle.

Roselle—Kasiri, Tamil; Gógu, Telugu (*Hybiscus sabdariffa*).—A good fibre is obtained from this plant, which is of two sorts, white and red. It is generally grown with chillies, brinjals, &c., or planted by the side of water channels. The red roselle is a six months' and the white a three months' crop. The fibre is prepared in the same way as hemp, and the leaves and ripe calices are boiled and eaten as greens.

Hill aloe.

Hill aloe—Kattálai, Tamil; Kalla manda, Telugu (*Agave Americanus*).—This is not cultivated, but grown as a hedgerow, and yields a very excellent fibre. The leaves, after removing the thorny edge, are buried in mud for three weeks, and then beaten on a stone, washed and wrung out. Some also scrape them on a board with a bamboo or blunt knife. The fibre is twisted into a twine with which mats are woven. As a rope it is used for bullocks' halters and other agricultural purposes.

Yerukku.

Yerukku, Tamil; Jilladu, Telugu (*Kalatropis gigantea*).—This plant would yield another excellent fibre, but is never used for the purpose. It is a large weed, growing thickly after long neglect upon paddy-fields.

Tobacco.

Tobacco—Pugai ilai, Tamil; Pogáku, Telugu (*Nicotiana tabacum*).—There are two varieties of this plant, the broad short leafed and the long narrow leafed. It is always grown on very good land, well ploughed, richly manured with cowdung and ashes, and irrigable from a well, if possible from one with slightly brackish water. The seed being very small only a little is sown, and that in seed-beds, at the beginning of the cold weather. The seedlings are transplanted, when about 2 inches high, into small rectangular beds, each plant being rather more than a foot distant from the next. For about a fortnight they are shielded from the sun by leaves, and are daily watered. After that the soil is hoed and weeded, and the plants earthed up after a little manure has been put over the roots. Thenceforward irrigation twice a week is necessary, and two months after sowing, when the plants are about 2 feet high, the head of each is nipped off. A shoot is soon put

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out from each leaf stem, and is at once removed. When four months' old the leaves show that they are ripe, by developing small white spots upon their upper surfaces. The plants are then cut near the root, and left to wither in the sun for a few hours, after which they are removed to a pit dug for the purpose, carefully arranged in it, and covered, first with varagu straw, then with palmyra leaves, and finally with earth. After a week the heap is opened and the leaves being plucked from the stems, and strung upon a cord, are exposed to the sun till they are dry. Sometimes they are at this stage sprinkled with country vinegar. About the fourth morning they are collected, still damp with the night dew, and arranged in the shade in a circular heap, all the tips pointing inwards, with palmyra leaves below and above the heap, and a heavy weight over all. At first daily, and afterwards once in two or three days, the leaves are unpacked and the whole re-arranged as before. After a month they are considered cured, but form very bad tobacco.

From 40 to 60 maunds is the ordinary yield per acre, giving a profit of about Rs. 100; but it is a very troublesome crop to raise and prepare for the market. The process of curing varies slightly in different parts. The cured leaf is chewed or smoked as cheroots, or as cigarettes rolled in a green leaf. A good deal is made into snuff, being slightly heated and powdered with ghee and chunam.

Chillies.

Chillies—Milagái, Tamil; Mirapakáya, Telugu (*Capsicum annuum*).—Only one sort, a large red kind, is ordinarily cultivated, very much in the same way as tobacco, except that it is often grown with brinjals, along the borders of beds of other garden crops, or by the side of a channel. The seed is sown in June or July, and in December or January, and when three months' old the plants begin to yield and continue to do so for three months. Each fruit as it ripens is picked and dried. Chillies are very extensively used in all native condiments.

Turmeric.

Turmeric—Manjal, Tamil; Pasupu, Telugu (*Curcuma longa*). —This plant is cultivated during most part of a year. About April portions of the fresh root are put down in small, well-manured beds, and soon throw out shoots. They are constantly watered and weeded, until in the following January or February the plant withers and is cut away, the root being dug up with small picks. The yield is generally 200 maunds, 10 maunds having been sown in an acre. The root is prepared for two purposes, viz., for condiments (kari manjal, Tamil; kura pasupu, Telugu) and for colouring (sáya manjal, Tamil; sáya pasupu,

Telugu). The edible preparation is generally boiled in cowdung and water in order to prevent its being eaten by insects. The colour saffron is partly dried, then boiled, and finally soaked in hot water in which chunam and tamarinds have been placed. After soaking for two or three days it is taken out and dried, when it becomes quite hard. Married women grind it into powder on one of the Tirupati sandalwood stones, and then, mixing the powder with water, colour their bodies yellow with it. They also pound it with a rice pounder, and, adding a red pigment, make with it the powder called kunkumam, with which they mark their foreheads. A scented sort of saffron, which is prepared in Bengal, is often used for these purposes and called kastúri manjal.

GLOSSARY OF SPECIAL REVENUE TERMS USED IN THE DISTRICT OF NORTH ARCOT.

Adangal	An account showing the cultivation in a village.
Agraháram	A Bráhman village or settlement.
Amánat	Money held in deposit.
Amáni	When used with reference to lands, it signifies the ryotwári lands in contradistinction to zemindári lands ; also when anything is under Government management : an attached zemindári is said to be under amáni.
Amín	A confidential agent, but now used to denote a seller of distrained property or a process server.
Anádi Banjar	Immemorial waste.
Anicut (Anikattu)	A dam to divert water for irrigational purposes.
Aravada méra	Emoluments of village servants calculated on the extent of cultivation, either of all classes of lands or of wet lands alone. The amount of grain due to village servants was determined by the extent of cultivation, and the fees thus arrived at were then commuted at the price of fasli 1215.
Arudikarai	Same as 'Palabhógam' [q.v.].
Arzi	A petition.
Áyakat	The area irrigable by a tank ; sometimes used to denote the whole extent of cultivable land belonging to a village.
Ayan or Ain	Government lands as opposed to inám lands. It is also used for land revenue when a sum is credited to ayan.
Azmaish	An inspection of crops, usually made with reference to claims for remission of land revenue on the ground that the crop has failed.
Bágháyat	Garden land.
Bájibáb	Miscellaneous items of revenue derived from various small farms and licenses.
Balute	See 'Bára-balute.'
Banjar	Waste lands.
Bára-balute	The twelve kinds of village servants. The number, however, varied a good deal.
Battavarthi Inám	Lands granted on a favourable tenure to Bráhman priests ; the term is used to denote lands held in common by several Mirásidárs.

Béríz .. .. .. The total sum or aggregate of an account; the total amount of a revenue assessment, in which sense it corresponds with *jama*, and lastly the total assessment of a village. The béríz of a village is the sum charged against the village for land revenue.

Bilmakta .. .. As applied to tree pattás the term signifies trees situated on a specified area, and which are held by the pattádár on payment of a fixed sum, such sum being generally less than the usual tree-tax.

Brahmádáyam .. A grant conferred upon Bráhmans.

Cawny .. .. See 'Káni.'

Chápávani .. .. Concealment of cultivation for the purpose of evading Government revenue.

Chautai, Chaut, Chout, Chavutáyi. From Sanskrit *Chaturta* = fourth. An assessment equal to one-fourth of the ordinary assessment. The most common use of the term is to denote the tax, equal to one-fourth of the actual collections, levied by the Mahráttas on the Muhammadan and Hindu princes as the price of forbearing to ravage their countries. But, as a revenue term in this district, it means the assessment assigned to Chautai dasabandamdárs for the maintenance of the dasabandam tank; the assignment is equal to one-fourth of the wet assessment on the lands irrigated by the tank.

Chíkatpuludi .. Lands ploughed, but not sown.

Cowle .. .. See 'Kaul.'

Dámásáhi .. .. The equitable division of the effects of an insolvent amongst his creditors: hence, any just proportionate distribution. It is also a money allowance paid to monigars and karnams in lieu of service ináms resumed. It appears to have been calculated on the revenue of all lands except garden lands.

Darkhást .. .. An application for lands for purposes of cultivation.

Darkhástdár .. .. A person who applies for lands.

Dárógha .. .. An excise or police officer. The term is not now used officially in the district.

Dasabandam Inám .. Land held on a favourable tenure for the maintenance of a tank. See 'Chautai' and 'Valavádi.'

Daul, Dowle .. .. An agreement between an abkári renter and shopkeeper stipulating for the sale of a prescribed quantity of liquor per mensem.

Dévádáyam .. .. Land assigned for the support of a temple.

Dharmakarta .. The manager of a temple.

Dittam .. .. An arrangement or settlement; estimated aggregate of the revenue of a village from investigation of each separate holding; also a scale for converting grain into money, especially used in this district in former days in calculating the emoluments of village officers.

Dowle .. .. See 'Daul.'

Dufter .. .. A bundle of records.

Ékabhógam, Yéka-bhógam. The possession or tenure of all the lands of a village by a single individual or family without any co-sharer.

Faisal jásti .. .. Any assessment or payment levied over and above the faisal tírwa or settled assessment, and was in former years used to designate the charge now called tírwa-jásti.

Faisal tírwa .. .. The rate, or tírwa, fixed on land at the time of the original survey assessments.

Fasli .. .. .. Properly the 'crop' (*fasl*) year, *i.e.*, the agricultural year counting from the 1st July to the 30th June. This is the year used in the Land Revenue accounts. It was inaugurated by the Emperor Akbar, who fixed the first fasli as 963, the current year of the Hijra (A.D. 1555). In the Deccan and Madras, however, it was not introduced until two years later, so that the difference between the fasli and the Christian year is 590 years. Thus fasli 1300 commenced on the 1st July 1890.

Fasli jásti .. .. An extra crop or one crop more than usual; but it more generally denotes an extra cess imposed on 'one-crop' land when a second crop was raised on it in the same year.

Garce .. .. See 'Garisai.'

Garisai, Garce .. A grain measure equal to 400 markals. The old North Arcot garce appears to have contained about 225 cubic feet.

Gumastah .. .. A native clerk or accountant; denotes also an agent or deputy.

Gunta .. .. A land measure, equal to 576 square feet; 100 guntas = 1 káni or cawny = 1·322314 acre. In the zemindáris the gunta varies a good deal (see vol. ii. chap. xx).

Guttagai .. .. Lease or agreement.

Hukumnáma .. .. In its common acceptation is a written order, but in the sense in which it is commonly used it is a standing order or set of rules laid down for the administration of the revenue of the district.

Huzúr .. .. The head revenue office of a district.
Inám .. .. A grant of land rent free or on favourable terms.
Irusálnáma .. .. Invoice of a remittance of village revenue.
Istiyár .. .. A proclamation or notification.
Isumdár .. .. The permanent holder of a village office.
Jaft .. .. .. Distraint or attachment.
Jágír, Jághír .. An assignment to an individual of a portion of territory, either rent free, or on favourable tenure. It is said to be strictly only a life or temporary grant resumable at the pleasure of the sovereign. A jágír differs from a zemindári in that the revenue or peshkash payable by the latter was fixed at some proportion of the receipts about the time of the settlement, while a jágírdár pays merely a lump sum not expressly calculated on such a basis. In the case of the jágír of Arni this payment was called a nuzzer or gift.
Jama .. .. .. An amount, aggregate or total in general; but in revenue parlance signifies the total demand for assessment, or the béríz of a village or district.
Jamabandi .. .. The settlement of the account of revenue due from a village, division or district, and is specially used to signify the annual settlement with the cultivators in ryotwári tracts.
Jaráyat .. .. A ryot whose sole occupation is agriculture; sometimes used in the zemindáris to denote a ryot who has, or claims, an occupancy right similar to that of a pattádár.
Jári .. .. .. Refers to lands or villages permanently settled.
Jódi or Jódigai .. A favourable rent or quit-rent. The amount payable by inám villages.
Kabuliyátnáma .. The counterpart of a sanad.
Kaifít .. .. .. A statement or affidavit.
Kalavásam .. .. From *kalam*, a threshing floor. Hire or fee given to labourers or inferior village servants from the threshing floor before the division of the crop.
Káneshmári .. .. The census of the population.
Káni .. .. A measure of land = 57,600 square feet = 1·322314 acre.
Kániyátchi .. .. The Tamil equivalent of the Arabic *mirási* [q.v.].
Karambu .. .. Waste or uncultivated land. It is of two kinds (1) *anádi karambu*, land which has not been cultivated within the memory of man, and (2) *sheikál karambu*, land which has gone out of cultivation within a known time. *Karambu* is the same as

	tarasu and differs from *porambóke* in that *karambu* lands are cultivable.
Karnam	A village accountant.
Kasba	The chief town or head-quarters of a taluk.
Kaul, Cowle	An agreement whereby land is held either permanently or on a reduced rent subject to annual increments.
Kávali	A watch or guard.
Kist	Instalment of payment of revenue.
Kistbandi	A statement of the periods at which the instalments are due.
Kogam	Permanent.
Kudi	Inhabitant or ryot.
Kudimarámat	The customary labour rendered by villagers for the repair of irrigation works.
Kúshki	Dry.
Lákhiráj	Lands held rent free.
Mahasúl	Produce or outturn of a field or garden.
Mahazarnáma	A memorial signed by parties concerned in a transaction; a joint memorial.
Majara	A hamlet, as distinguished from a mauzâ or principal village.
Mámúl	Custom.
Mámúlnáma	District rules of revenue practice.
Mánávari	Lands which solely depend on falling rain for irrigation.
Mániam	Lands granted rent free for the performance of village services, *e.g.*, lands granted to village servants and to the village temples. Original grants are known as *tarabadi* or *tarappadi mániams*, while those of recent times are called *sanad mániams*.
Mauza	A village, its lands and habitations.
Markal	A grain measure equal to eight Madras measures or padis.
Maṭh	A religious institution.
Mélváram	The Government share of the produce of a field.
Méra	The grain fees payable to village officers on the division of crops. See 'Aravada' and 'Tindakáni.'
Mirási	(1) The mirási tenure is that under which the lands of a village are divided among certain families, who are called mirásidárs. The rights of mirásidárs were hereditary and in *palabhógam* villages could be transferred with the land, but the other mirásidárs had the right of pre-emption in the event of a sale.

(2) The term 'mirási right' is also applied to the hereditary right to village offices, and persons possessing such right are called mirásidárs.

Monigar .. .. The village headman who collects the village revenue.

Moyinzábita .. .. List of revenue office establishment.

Muc'chilika .. .. The counterpart of a lease executed by a tenant to a landlord.

Mujara .. .. Remission granted to ryots for adverse seasons.

Munsif .. .. The village magistrate.

Nanjai, Nanja .. From *nal*, good, and *sai*, cultivation. Irrigated or wet land.

Naphargati .. .. Individually, man by man. The naphargati account is that which shows the holding of each pattádár.

Náttangál .. .. Seed-bed in which seedlings are raised for the purpose of transplanting.

Nirakhnáma .. .. Price list of grain and other merchandise.

Nírganti, Nírkatti .. A village servant whose duty it is to see that no water for irrigational purposes is wasted and that a proper distribution of it is made.

Paimáli .. .. Lands or crops destroyed by the marching of troops; also compensation for damage done to standing crops by the passage of troops.

Paimash .. .. Land measurement. It denotes commonly first settlement made by the British, which took place in the northern taluks in 1805 and in those south of the Pálár in 1808.

Palabhógam .. .. A land tenure under which each ryot or mirásidár holds a defined portion of the village lands and exercises full rights of ownership over such portion, but the other mirásidárs have the right of pre-emption.

Pancham hissa .. One-fifth share.

Panchángi .. .. The village astrologer.

Pancháyat .. .. A body of five persons sitting as a court of arbitration or a caste tribunal.

Pánibuditi .. .. Lands which have been submerged by excessive rain by the breaching of a tank.

Parakudi .. .. (1) A tenant; (2) a non-resident ryot; see 'Páyakári.'

Parári .. .. A ryot who has disappeared from a village.

Pasankarai .. .. Same as 'Samudáyam' [q.v.].

Patkat .. .. The lands held by a ryot; a farm in the English sense.

Pattá .. .. .. A deed of lease given by the Collector to the ryot specifying the particulars of his holding, the rent payable for it, the instalments in which the rents should be paid and the road cess and village cess payable.

Pattádár .. .. A holder of a pattá.

Páyakári .. .. Properly 'payir-káran.' A cultivator who rented lands from the village sharers or mirásidárs. Originally a páyakári was a mere tenant without any occupancy right, but some of them did in time acquire this right and were called *Ulkudi páyakáris* or *Ulpayirkudis*, while the purely temporary tenants were called *Parakudi páyakáris* or simply *Parakudis*.

Peshkash, Peishcush.. The rent payable to Government by the owners of permanently-settled estates.

Pódukál, Pódugál .. From *pódu*, to throw up or leave, and *kál*, land. The term is somewhat loosely used, but it generally means assessed land left waste. The expression is chiefly met with in the Pólúr and Wandiwash taluks.

Poramboke .. .. Properly *puram-bókku*. Lands which are exempt from assessment either because they are set aside for communal purposes or because they are uncultivable.

Punjai, Punja .. From *pul*, inferior, and *sai*, cultivation. Dry land or cultivation.

Rázináma .. .. A deed of relinquishment executed by the cultivator when he gives up his pattá lands. Also a document withdrawing a suit or prosecution.

Reddi .. .. .. Name of a large cultivating caste, but is used to denote a village headman, who in the Telugu taluks is usually of this caste.

Riváz .. .. .. A custom or 'mámúl.'

Riyáyat .. .. Abatement of assessment.

Sadarwárid .. .. Contingent expenses.

Ságubadi dittam .. A statement of lands settled to be cultivated in the course of the year.

Samudáyam .. .. A system of landholding among the mirásidárs of a village under which each ryot was obliged to cultivate his share of the land with a specified number of ploughs and labourers, while at harvest the gross produce of all the village lands was divided after the shares due to the State, the gods, Bráhmans, &c., had been deducted.

Sanad .. .. .. A document conveying to an individual the Government rights to revenue from land.

Sanad-i-Milkeut Istimrár. A deed of permanent property. The holders of permanently-settled estates have deeds of this character.

Sánubógattár .. Chief tenants.

Sáyar, Sáyer .. .. The term is applied to transit duties and a variety of imports.

Shámilát Banjar .. Lands which are not let out or severally appropriated, but which are cultivated in common and the produce of which is divided amongst the proprietary body of a village according to recorded shares.

Shávi .. .. .. Withered crops.

Shóndi, Sendi .. Toddy.

Shist, Sist .. .. The land tax, assessment, revenue assessed in money (*vide* kist *supra*).

Shódirázináma .. A document by which a ryot resigns his holdings or any part of it (*vide* Rázináma *supra*).

Shráyam .. .. Land held on a progressive rent for a term of years. As applied to assessment on lands, the term signifies subsequent addition to the assessment of a sum equal to the amount of temporary remissions.

Shroff, Saraf .. .. A money changer or banker. An officer employed in villages and treasuries to count and pass all coin paid in; but the office of village shroff no longer exists.

Shrotriam .. .. Lands held at a favourable rate; properly an assignment of land or revenue to a Bráhman learned in the Védas, but latterly the term denoted assignments made to native servants of Government for past services.

Sirkar .. .. The Government.

Sivái jama, Sivoy jama Extra revenue. The term formerly included all revenue other than that derived from land, customs or excise, but now it is generally used to denote the revenue from lands cultivated without pattá.

Swánu bhógam .. The payment made to a mirásidár by a *parakudi* or tenant.

Swarnádáyam .. Rent or revenue receivable in money, not in kind.

Swástiam .. .. Mirási or hereditary land and privileges enjoyed by Bráhmans.

Swatantram, S.tuntrum. Literally means 'one's own' or independent property, but is used to denote fees or perquisites payable to different village servants.

Tafrík	Any extra contribution which the village officers used, *suo motu*, to impose on the villagers.
Takarár	A dispute about anything.
Takávi	An advance made by Government to ryots for agricultural purposes.
Tákíd	A written order from a superior to an inferior.
Taliári	A village watchman.
Tarabadi, Tarappadi.	See 'Mániam.'
Taram	Sort, kind or class, especially applied to classification of soils.
Taram Kammi ..	A reduction of the tarams into which the land was divided.
Taram Tírwa	The assessment fixed on a particular class of land.
Tarasu	A part of a field left uncultivated; land which is cultivable, but not cultivated.
Teazgári	A deduction of assessment allowed in the case of lands held by Muhammadans and Bráhmans. The rate of deduction was at first 5 per cent. of the assessment, but was afterwards raised to 10 per cent. This was objected to by Government in 1835 and the concession was a few years after cancelled.
Thari	Wet or irrigated land.
Tinda Káni Méra ..	Méra calculated upon a *determined* number of kánis. The nanjai béríz of the village is converted into grain at a certain rate, and from the quantity of grain thus obtained the number of kánis is calculated at the rate of 30 to 40 kallams per káni. The determined number of kánis having been thus obtained, the méra is calculated thereon at the scale prescribed for the village. The grain fees thus arrived at are then converted into money at the commutation prices of faslis 1215 and 1236.
Tírwa	The assessment of the land.
Tírwa jásti	The charge for water taken to irrigate land which has been classed as punjai or unirrigated.
Tírwa Kammi ..	Remissions granted on irrigable lands cultivated with a dry crop, but which otherwise would have been left waste.
Tírwa pattu, Tírwapat.	Lands held on a fixed rent, irrespective of the crop, as distinguished from *Várapattu* or lands of which the rent consisted of a share of the produce.
Tóti	A menial village servant.

Tóttakkál	Garden land.
Tuccavi	See 'Takávi.'
Tukkudi	A division or district.
Tunduváram	The landlord's share of the produce of land cultivated by tenants.
Ulkudi	For original meaning see 'Páyakári.' It now means little more than a resident ryot.
Vakálatnáma ..	A power-of-attorney.
Valavádi	Valavádi dasabandam tanks are those which supply certain tracts of land granted as wet at a fixed assessment at the time of the construction of the works. They are maintained by the proprietors, who possess the right of charging for any irrigation therefrom extended to other lands. These tanks are found only in the Chendragiri taluk. Seven so-called Valavádi villages were treated at the settlement as inám villages, but they were subsequently classified as Government villages.
Váram	The produce of a field, or more usually, a share of it, especially the share paid by a tenant to his landlord.
Várapattu, Várapat ..	Lands held on *váram* or the sharing tenure, as distinguished from *tirwapattu*, lands held on a fixed rent.
Vartana, Vartane ..	Fees, perquisites, especially of grain, paid to the public servants of a village.
Vettiyán	A village menial servant: in Telugu he is called tóti.
Yeomiah, more correctly, Yaumia.	A daily allowance, a pension, paid sometimes by deductions from the béríz of a village, sometimes from general revenues. These pensions were granted in the earlier years of British rule for special services, and are usually for several lives, though a reduction is often made as each life terminates.
Yeomiahdár	Recipient of a daily pension.
Yéripác'chi	Fish rent.
Zemindar	The owner of an estate under the permanent settlement.
Zemindári	Lands held under a permanent settlement on a sanad-i-milkeut istimrár.

APPENDIX I.

BAILLIE'S DEFEAT.

Mr. Cox, in his account of Colonel Baillie's defeat at Pullalúr, has taken the commonly accepted view and ascribed the disaster to the incompetency of Sir Hector Munro, the Commander-in-Chief; but in fairness to that unfortunate officer the other side of the case should at least be stated. On the 6th September Munro was encamped on elevated ground near Conjeeveram, about 2 miles along the road to Perambákkam, where Baillie was lying. On the 8th Baillie's request for assistance was received and Colonel Fletcher (not Floyd as stated in the text) was despatched with a strong detachment. Fletcher, a brilliant officer formerly in the Black Watch, skilfully evaded the enemy and joined Baillie at Perambákkam early on the morning of the 9th. General Munro's orders were that Baillie was to march all night and join him at Conjeeveram, and the force accordingly set out at 8 o'clock. Shortly afterwards fire was opened upon the column, but this was soon silenced. Instead of resuming the march, however, Baillie suddenly decided to halt until day-break, a course which was strongly opposed by Colonel Fletcher, who urged him to push on to Conjeeveram, then only 8 or 9 miles distant. If Sir Hector Munro's orders and Colonel Fletcher's advice had been followed, there is every reason to believe that the disaster would have been averted.

Mr. Cox blames Munro for not advancing with his whole force to effect a junction with Baillie. The General says, however, that this was impossible, as the stores of paddy at Conjeeveram would then have fallen into the hands of Hyder and the British Army would have starved.

For his failure to support Colonel Baillie's detachment on the morning of the 10th September, General Munro was undoubtedly greatly to blame. He let Hyder give him the slip in the night, and although he marched towards Perambákkam at day-light, when heavy firing was heard in that direction, he allowed himself to be misled by his guides, for Sir Thomas Munro, who was present, says that it was obvious to every one that the guides were leading the army away from the scene of action. (See *History of the Madras Army*, vol. ii.)

APPENDIX II.

LIEUTENANT FLINT.

FLINT's gallant defence of Wandiwash did not go entirely unrewarded, for although his promotion to the rank of captain was cancelled by the Court of Directors, as stated in the text, yet he soon afterwards received the command of the 3rd battalion, now the 3rd regiment of Native Infantry. In December 1790 he held the fort of Tiaghur in South Arcot with this regiment and repulsed two attacks by Tippoo, on whom he inflicted considerable loss. I have not been able to ascertain anything regarding his subsequent career.

In the order which he issued to the army on the relief of Wandiwash Sir Eyre Coote expressed his approbation of the "judgment, "bravery and activity of Lieutenant Flint in maintaining the fort of "Wandiwash against very powerful attacks." He also thanked Ensign Moore and the men of the garrison for their conduct and granted the latter a gratuity equal to one month's pay.

APPENDIX III.

THE VELLORE MUTINY.

MR. Cox's account of the Vellore mutiny differs in some respects from that given in the third volume of the *History of the Madras Army*, which was published after the issue of the first edition of this Manual.

From the evidence of Sergeant Cosgrave, who was sergeant of the barrack guard on the fatal night, and from that of Corporal Piercy of the main guard, it appears that the attack began at 2-30 A.M., and this would seem to be inconsistent with the story given by Mr. Cox about the 23rd N.I. being drawn up on the parade ground in ignorance of the projected outbreak, a story which is not mentioned in the work referred to above. The 23rd seems, indeed, to have been more active in the mutiny than the 1st regiment. The barracks of the 69th (now the 2nd battalion of the Welsh regiment) were the first object of attack, but the Europeans at the main guard were fired on almost simultaneously.

Alarmed by the heavy fire of musketry, eight officers and a sergeant met at the house of Lieutenant Ewing, the Adjutant of the 1st N.I. These were Captain MacLachlan, Lieutenants Mitchell, Baby and Jenour and Sergeant Brady of H.M.'s 69th regiment, Lieutenants Ewing and Cutcliffe and Surgeon Jones of the 1st N.I., and Assistant

Surgeon Dean of the 23rd N.I. They repulsed an attack by the mutineers and then went to Surgeon Jones's house which was better adapted for defence. Meanwhile Surgeon Brady was sent to obtain information and an hour later he returned with an account of the disastrous slaughter that had taken place. At 7 A.M., Lieutenant Mitchell of the 69th left Surgeon Jones's house, intending to make his way to the barracks or to the house of Captain Barrow, the senior officer of his regiment then in the fort. An hour later the surgeon's house was attacked by a strong body of the mutineers and the place becoming untenable, the little party made a rush for the barracks, where they found Lieutenant Mitchell. After a short consultation it was determined to sally out from the windows and make for the adjoining ramparts. Captain MacLachlan, as senior officer, took command and it is estimated that the force consisted of 210 out of the 372 non-commissioned rank and file in the fort. The ramparts were gained under a heavy fire and the troops then advanced to dislodge the insurgents from the north-east cavalier, where they were established in considerable force. This was accomplished with the loss of several men, and Captain MacLachlan received a severe wound through the thigh. Captain Barrow of the 69th had joined the force on its way to the attack and took command as senior officer. Leaving a party at the cavalier, Captain Barrow proceeded along the ramparts under a continuous and heavy fire of musketry and seized the gateway. The fire from the palace at this time was excessively heavy; many men fell and Lieutenant Mitchell was severely wounded in the arm. A party was left at the gateway and it was then determined to attack the grand magazine, for the men had scarcely a single ball-cartridge left. The main body accordingly proceeded to carry the bastion and cavalier at the south-east corner of the fort, which lay on the way to the magazine, and it was here, and not in the attack on the north-east cavalier, that Captain Barrow fell from a musket shot through the leg. Surgeon Jones and Assistant Surgeon Dean were the only officers then left with the main body and they carried the bastion and cavalier, with the loss of several men. The party next arrived at the flagstaff and a soldier, in attempting to take down the Mysore flag, was shot from the petta. A heavy fire was kept up and the men fell fast on their way to the magazine, where, to their grievous disappointment, they found only some loose powder. They returned to the cavalier and gateway and soon afterwards the first body of Colonel Gillespie's cavalry was seen approaching.

It was on their way back from the fruitless visit to the magazine that the Mysore flag was taken down. Volunteers were called for, and Sergeant MacManus and Private Philip Bottom of the 69th accomplished the hazardous feat under a very heavy fire both from the petta and the fort. They were thanked in General Orders and received donations of 50 and 20 pagodas respectively. This flag is said to have been handed out of the palace by Muiz-ud-dín, the third

son of Tippoo. It had green stripes on a red field, with a sun in the centre, and not red stripes on a green field as stated in the text.

The foregoing account is taken from a joint report submitted by Surgeon Jones and Assistant Surgeon Dean. It will be seen that no mention is made of the officers endeavouring to persuade the men to leave the fort by the rope and of the men refusing to abandon the place, as narrated in the text. Lieutenant Ewing, of the 1st N.I., having become separated from the other officers when they made their way from the house of Surgeon Jones to the barracks, collected some European stragglers, and making his way out of the fort, joined Colonel Forbes. These two officers, accompanied by a number of unarmed men belonging to their own regiment, then took possession of the principal hill fort, where they remained until after the dispersion of the mutineers. Lieutenant Ewing's deposition has not been found and it is not known how he escaped from the fort. It is very unlikely, however, that he escaped by the rope at the main gate, for the gateway was in the possession of the mutineers until some time after the rush from the house of Surgeon Jones. It has been suggested (*History of the Madras Army*, volume iii. page 185, footnote) that he left by the sally-port or Ambúr gate, which was held by a guard of his own regiment.

The story given in the text about the escape of Major Cootes and his ride to Ranipet for succour is not confirmed by the *History of the Madras Army*. According to that work information was sent to Ranipet by Major Coates of the 69th, who lived *outside* the fort. From the great similarity of names it is probable that this is the officer mentioned in the story, but he was not inside the fort on the night of the mutiny, and he did not himself ride to Ranipet, but sent a letter. There is a local tradition that the cavalry came from Ranipet in an unusually short time, but this is not so. Colonel Gillespie received the news at 6–0 A.M., and he, with the first body of the cavalry, cannot have reached Vellore until about 9 or 9–30 A.M., for the sally from the barracks was not made until after 8 A.M. The rest of the cavalry arrived at 10 o'clock.

The 69th regiment suffered a very heavy loss. The killed were Lieutenants Eley and Popham, 5 sergeants, 4 corporals, 1 drummer, and 90 privates, and 15 privates subsequently died of their wounds: total killed 117. The wounded, exclusive of the 15 mentioned above, numbered 76 non-commissioned officers and men, and 3 officers, viz., Captains Barrow and MacLachlan and Lieutenant Mitchell.

The other officers killed were—

Colonel Fancourt, Her Majesty's 34th regiment, commanding the garrison.

Lieutenant-Colonel McKerras, Captain Willison, Lieutenant Winchip, Lieutenant Jolly,	Of the 23rd regiment N.I.

Captain Miller,
Lieutenant O'Reilly,
Lieutenant Smart,
Lieutenant Tichbourne, } Of the 1st regiment N.I.

Major Armstrong, 16th N.I.

Mr. Mann, Deputy Commissary of Stores.

Mr. Gill, Conductor of Ordnance.

Mr. Smith, Military Paymaster.

Lieutenant Cutcliffe of the 1st N.I., was "desperately wounded," and Captain Marriott, Assistant Paymaster of Stipends, was wounded slightly. The cavalry suffered but little loss, "a result which may be "attributed to the gallantry of the 69th [in capturing the gateway], "for had the mutineers raised the drawbridge and closed the two outer "gates, the fort could not have been recaptured by a *coup de main.*"

About 350 sepoys were killed in the fort. The total number missing was two native officers and 879 men, and many of these were taken prisoners during the next few days. Of the ringleaders six, including two subadars, were blown away from guns, five were shot and eight were hung. The 1st and 23rd regiments were eventually struck off the strength of the army, and about 600 of the mutineers were sentenced to transportation beyond the seas, but this sentence was commuted by Lord Minto, the new Governor-General, to dismissal from the service.

Colonel Gillespie was presented with 7,000 pagodas and Sergeant Brady with 800 pagodas as an acknowledgment of their services. The sergeant was also offered a commission, but, at his own request, he was given instead an appointment as Conductor of Ordnance. The native officers and privates of the Native Cavalry and the non-commissioned officers and troopers of the 19th dragoons were also handsomely rewarded, but the officers and men of the 69th and the two Surgeons, Jones and Dean, do not appear to have received any pecuniary acknowledgment of their gallant achievements. The 69th in 1863–64 raised a handsome monument in the Vellore cemetery to the memory of the officers and men who were killed in this mutiny.

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